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News Summary

Articles on inside pages

The Reagan Presidency and Higher Education

The nearly eight years of Ronald Reagan's Presidency have produced sweeping economic, social, and political change for the nation—and for higher education.

In a special report that begins on Page A22, six stories tell how individual colleges and universities—as well as Washington's lobbyists and lawmakers—have also changed in that time.

Scholars nourished on the politics of the 1960's are questioning what impact their research has had on public policy and law: Page A5.

College personnel officers, now involved in a wide array of employment issues, are getting the respect they say they deserve: Page A15.

A survey indicates that many student-affairs administrators see alcohol-related problems increasing on campuses: Page A35.

As a result of the professionalization of the sports industry, more colleges are offering sports management as an academic discipline: Page A39.

A proposal to end Britain's policy of tuition-free higher education has been considered by the government, documents suggest: Page A43.

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Fate of Accelerator Unclear as Selection of Site Approaches

Highly sought-after supercollider might not be built after all

By KIM A. McDONALD

WASHINGTON

With the federal government's long-awaited decision on a site for its Superconducting Supercollider expected within a few weeks, the ultimate question facing the seven states left in the competition is not where the $4.4-billion particle accelerator will be built, but whether it will be built at all.

Uncertainty over the next President's support of the supercollider and doubts about the willingness of Congress—in the face of the huge federal deficit—to commit to such an expensive venture have many of the most optimistic proponents of the project clearly worried.

"It's not going to be easy," said Henry M. Gandy, director of Texas's office of federal relations, noting that once a site for the supercollider is chosen, lawmakers from the losing states may withdraw their support.

"It's been an uphill fight so far," he added. "But I believe there is still significant support for the project among key members of Congress."

Millions of dollars have already been spent by each of the seven finalists in the

Continued on Page A8

16,242 ENTRIES IN ONE CATALOGUE

Colleges Try New Ways to Thwart Companies That Sell Term Papers

By THOMAS H. MOORE

Colleges across the country are making new efforts, both in and out of the classroom, to short-circuit companies that sell ready-made term papers. Sold under the guise of "editorial assistance," thousands of such papers are available on topics ranging from "Ethics in Education" to "Spinoza's Philosophy."

"The student who panics, who's under some intense deadlines, is the type that uses the companies," says David T. Ouimette, associate director of the student-conduct office at the University of Southern California.

Says Gary M. Galles, an assistant professor of economics at Pepperdine University: "In classes with long papers, there are only two weeks left in the term before the students know enough to write them. That breeds a lot of desperation."

Typical Cost: $7 a Page

Students who are inclined to purchase their papers have plenty of topics to choose from. For example, Research Assistance, a Los Angeles–based firm, publishes a hefty catalogue, the latest edition of which offers 16,242 papers in 141 areas. Each entry gives a one-sentence description of the paper and includes the number of pages, footnotes, and bibliographic sources.

Such "assistance" typically costs $7 a page for stock papers, while custom

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Revamping of Financial Aid Called Vital for Low-Income and Minority Students

By JEAN EVANGELAUF

WILLIAMSBURG, VA.

New or revamped financial-aid programs are vital if low-income and minority students are to enjoy wider opportunities, according to educators, researchers, and policymakers who met here to examine public policy and higher education.

While they disagreed over the extent to which financial aid had opened the doors to college for low-income and minority students thus far, they agreed that the current mix of grants and loans would not serve those students well in the future. They cited rapidly rising tuition fees, the soaring cost of student-loan defaults, and a growth in the numbers of minority and non-traditional students.

Money alone, they warned, would not be sufficient to insure that all students have the opportunity to attend the colleges of their choice. Public schools must provide better counseling to children and their parents, they said, and must assume more responsibility for helping adults prepare for higher education. Colleges and universities, they added, must offer a more hospitable climate to those from diverse backgrounds.

Some researchers also admitted that lit-

Continued on Page A37

New Tests Expected to Bring Dramatic Changes in the Way Prospective Teachers Are Assessed

By BEVERLY T. WATKINS

NEW YORK

The next generation of tests to certify schoolteachers will consist of multimedia packages, rather than pencil-and-paper examinations, say the education researchers who are developing them. The new tests will be given at different times during a teacher's education and career, make extensive use of new technology, and include ways to evaluate actual classroom performance.

All in all, the researchers predict, the new tests will dramatically change teacher assessment.

"I no longer think of the assessment of teachers as involving a single test or a battery of tests," said Lee S. Shulman at a conference here. "It is a process that unfolds and extends over time."

Mr. Shulman, an education professor who directs the Teacher Assessment Project at Stanford University, was one of several researchers who summarized parts of their work at a meeting convened by the

Continued on Page A36

Euthanasia an Increasingly Pressing Issue for Ethicists and Physicians

By DAVID L. WHEELER

A professor of surgery tells a story about an urgent call he got one night when he was young and working as an intern in a Cincinnati hospital.

A nurse told him he was needed on a ward that he was covering for a fellow intern. Upon arriving there, the young doctor was directed to the room of an elderly male patient who was blue from a lack of oxygen and near death. A cancerous tumor had pushed into the patient's windpipe, blocking his breathing.

The intern surgically opened a hole through the patient's neck into the windpipe and inserted a tube to let air in. The patient started to breathe. After he had regained consciousness, the patient reached for a pencil and a piece of paper.

"Why did you do this to me?" he wrote.

"I realized then," said George R. Dunlop, a professor of surgery at the University of Massachusetts medical center, "that there was more to medicine than keeping patients alive."

The agonizing question of when doctors should stop treating patients and when, if ever, they should step in to help patients die, is an increasingly important topic in medical ethics and legal scholarship. The medical technology available to prolong life is growing more sophisticated, while the government's ability to pay for that

Continued on Page A6

Significant Infection by AIDS Found Among College Students

Early findings of a national survey show AIDS has infected a substantial number of students: Page A2.

MARGINALIA

From *At Chicago*, a newspaper at the University of Illinois at Chicago:

"A 12-day tour of London highlighting the places where Charles Dickens lived and wroted will be sponsored Dec. 8-9 by the Scholarship Association for the University of Illinois at Chicago."

They'll know wot's wot, they will.

■

According to a memorandum at California State College at Bakersfield, October 16-22 was Campus Litteracy Awareness Week. Had something to do with trash, we gather, since October 22 was Litter Clean-up Day, on which, says the memo, "at 12:30 Carl's Jr. will host a pick nic."

■

From a letter in *Notices of the American Mathematical Society*:

"... In typing mathematics, one often makes the separation between text and formulas more clear by leaving double spaces around symbols: e.g., around the '*x*' in

"If the element *x* has the above property

"I have found it useful to extend this to typeset text. E.g., I prefer

"If the element *x* has the above property

"rather than

"If the element *x* has the above property

"and suggest that this practice be made standard. . . ."

You'll hear no objection from *us*.

■

Memo circulated via electronic mail at Wayne State University:

"SUBJECT: 'On or about'

" 'On or about July 1' can appropriately be construed to mean either a short while before July 1 or a short while after July 1. 'A short while' can appropriately be construed to mean as much as two weeks. Thus there is no problem with an individual going on the payroll anytime within the FOUR WEEK PERIOD comprised of the TWO WEEKS BEFORE THE DATE THRU THE TWO WEEKS AFTER THE DATE."

Thanks.

■

From a book note in *The Benchmark*, a newsletter from the New York State Education Department:

"*Women's Thesaurus* is a reference book that lists some 5,000 terms that cover the broad range of concerns shaping women's livers. . . ."

We'll leave it for the M.D.'s, if you don't mind.

■

From *The Chronicle*:

"The association is an organization of retired faculty members, their spouses, and their surviving spouses."

"An organization of retired polygamists, maybe?" a reader asks.

—C.G.

In Brief

U. of Richmond to Accept Freshmen for Law School

The University of Richmond plans to guarantee top prospective freshmen admission to its law school upon completion of their undergraduate studies.

Students in the top 10 per cent of their high-school classes who have a combined score of at least 1,300 on the Scholastic Aptitude Test will be admitted to the law school if they maintain a high B average in college.

The university hopes to attract undergraduates who have higher grades and get a more diverse law-school population, according to Ann S. Gibbs, the law school's assistant dean. The first students in the program will enter Richmond in the fall of 1990.

AIDS Virus Found to Be Gaining on Campuses

Early data from a nationwide study of AIDS infection on college campuses "clearly establishes" that the virus has reached significant numbers of students, health officials said last week.

Gary Noble, deputy director for AIDS of the federal Centers for Disease Control, told a meeting of college newspaper editors that, among the first 5,000 blood samples tested for the study, 3 in 1,000 contained antibodies to H.I.V., the virus that causes AIDS. Other C.D.C. officials cautioned that the rate could rise or fall as more samples are tested.

'A Real Problem'

Even though incomplete, the figures "should once and for all wake people in higher education up to the fact that AIDS is a real problem on campuses," said Richard P. Keeling, who is director of the student health service at the University of Virginia and president of the American College Health Association.

The study, which is being conducted by the association for the C.D.C., will eventually test the blood of at least 20,000 students from 20 universities and colleges. It makes use of blood drawn for other reasons in selected college health services. The study is part of a larger effort by the C.D.C. to estimate the level of H.I.V. infection in the population.

Dr. Keeling said an initial analysis of the completed survey should be ready in January.

—L.B.

Depression Found Rising Among Medical Students

Medical-school pressures are causing a "troubling" rate of severe depression among students, according to a study published last week in the *Journal of the American Medical Association*.

The four-year study of about 120 medical students at a Midwestern university showed that between an eighth and a quarter suffered from serious depression in the first three years of medical school.

The study found that at least 12 per cent of medical students had "considerable depressive symptoms" at any point during their first three years of medical school. Only about 5 per cent of other people who are now between the ages of 18 and 24 will experience a major depression during their lifetimes.

The researchers from Northwestern and Rush Universities who conducted the study said 25 per cent of the medical students had signs of severe depression near the end of their second year of school—just before taking final exams and the first part of a national medical exam.

The researchers said they did not reveal the identity of the medical school in the study to protect the confidentiality of its students.

Workshops on Ethics Replace Classes for a Day

Florida International University last week canceled classes for one day so that students and members of the faculty and staff could attend a day-long series of workshops on ethics.

A spokeswoman said the workshops replaced the annual faculty convocation. Topics covered in the workshops included student cheating, science ethics, and ethics and the professoriate.

Missouri Official Sues 'Diploma Mill' for Fraud

The attorney general of Missouri has filed separate civil lawsuits against an alleged "diploma mill" and an accrediting agency operating in the state.

In the first lawsuit, Attorney General William L. Webster charges that the University of North America, Inc., is a "diploma mill," and not a legitimate educational institution. The state alleges that the university does not employ faculty members and claims to be accredited by a fictitious accrediting agency.

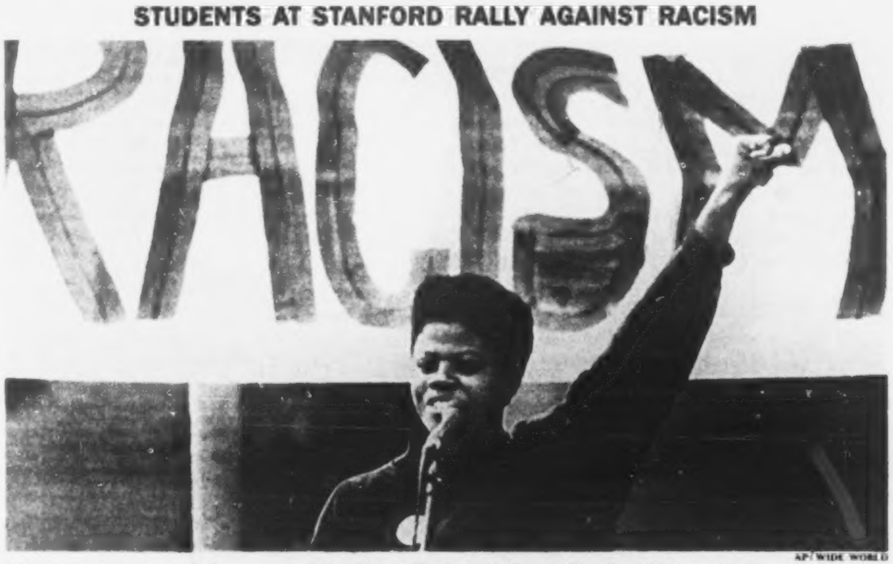
The St. Louis County Circuit Court ordered the university to cease operations pending hearings in the suit. Officials at the university could not be reached for comment.

In the second case, the attorney general accuses the International Accrediting Commission for Schools, Colleges and Theological Seminaries of Holden, Mo., of failing to evaluate colleges it accredits.

The state charges that the commission accredited a bogus business college set up by state attorneys who had listed the Three Stooges as advisers to the college.

The commission's lawyer, Susan Ellmaker, said the business college's accreditation was "provisional" based on the need to correct problems cited during an evaluation.

STUDENTS AT STANFORD RALLY AGAINST RACISM



AP/WIDE WORLD

Cheryl Taylor, vice-chairwoman of the Black Student Union at Stanford University, speaks at a rally on the campus called to protest recent racial incidents there.

STANFORD, CAL.

A new organization formed to fight racism at Stanford University, called the Students of Color Coalition, staged a rally on the campus that drew about 400 participants.

The demonstration was called in the aftermath of two racist incidents: the defacing of a dormitory poster of Ludwig van Beethoven to resemble a stereotype of a black person, and the scrawling of the word "niggers" across a black fraternity's poster.

The protesters made several demands of the university administration, including the addition of Asian-American and Native-American studies programs; required ethnic studies for all students; and an increase in the size of the staff of the ethnic cultural centers, including the addition of full-time deans.

At the University of Massachusetts at Amherst, about 3,000 students, faculty members, and other members of the campus community formed a human chain to mark the second anniversary of a racial brawl there.

—ELIZABETH GREENE

Explosives in Dorm Room Lead to Student's Arrest

A student at the University of Colorado has been given six months' probation and ordered to perform 100 hours of community-service work and write a paper on errors in judgment for storing explosives in his dormitory room.

Mark Borchelt, a sophomore engineering major, was arrested on charges of storing explosives without a permit and reckless endangerment. He has been permitted to attend classes, but not to enter any dormitory.

Students were evacuated from Mr. Borchelt's dormitory for three hours last month while police, acting on a tip, searched it. They found two sticks of dynamite, several bottles of explosive powder, and lengths of fuse, all belonging to Mr. Borchelt.

'Alternative' Newspaper Has Funds Restored

A student judiciary board has reversed a decision cutting off funds to an alternative student newspaper at California State University at Long Beach.

The Student Senate terminated funding for *The Union*, a weekly

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paper, after it published a satirical **edition with** erotic drawings, **which Roger Thompson**, the student-government president, said **showed** poor taste. The newspaper missed four issues.

The judiciary committee ruled **the** senate could not cut off the **newspaper's** funds without going **through** a student publications **board**. Mr. Thompson said he **would** recommend that the senate **not** pursue the matter further.

Corrections

■ A list of college athletics departments against which sex-discrimination complaints have been **filed** in recent months (*The Chronicle*, November 2) incorrectly included the University of **Maryland** at College Park. A complaint has been filed against the **University** of **Maryland–Baltimore** County.

■ Because of incorrect information supplied by state officials to the Illinois State University Center for Higher Education, the state-appropriations figures for one California university and for all of public higher education in Kentucky were incorrect in the October 19 issue of *The Chronicle*. California State University–Dominguez Hills is actually receiving $35.6-million in state funds this year, a 16-per-cent increase from two years ago.

The following are the correct totals for the support of Kentucky's public universities from state tax revenue for the current year, along with the percentage increase over the total from two years ago:

	(In millions)	
Eastern Kentucky U	$41.2	+ 7%
Kentucky State U	$13.8	+ 7%
Morehead State U	$24.9	+ 7%
Murray State U	$30.8	+ 7%
Northern Kentucky U	$21.5	+ 9%
U. of Kentucky	$183.3	+ 16%
U. of Kentucky community colleges	$38.7	+ 19%
U. of Louisville	$104.4	+ 11%
Western Kentucky U	$40.5	+ 7%

When other state support is included, the total state budget for higher education is $518.4-million, + 13%.

Students at Yale's Management School Protest Major Changes in Curriculum

By MICHELE N-K COLLISON

Anxious students at Yale University's School of Organization and Management boycotted classes and staged demonstrations last week to protest major changes in the school's curriculum.

The protests came in the wake of the appointment of a new dean by Yale's president, Benno C. Schmidt, Jr. His selection of Michael E. Levine, a member of the management-school faculty, was seen by many students and some faculty members as a signal that the school might be moving away from its innovative approach to educating managers.

In its 12-year history, the School of Organization and Management has emphasized a humanistic approach to management and focused more than many of its competitors on teaching organizational behavior and group dynamics.

Following his appointment, Mr. Levine ordered a restructuring of the organizational-behavior department, which offers some of the most popular courses in the school. In addition, he announced that the contracts of six of the department's non-tenured junior faculty members would not be renewed and a doctoral program in organizational behavior would be discontinued. One faculty member quit to protest the changes.

Mr. Levine also announced that the operations-research department was being transferred to the university's College of Arts and Sciences.

Ideological Divisions

The school had been without a permanent dean since Burton G. Malkiel left for Princeton University in 1987. Students and faculty members say that ideological divisions within the faculty made it difficult to appoint a new dean.

"There was dissension within the school over the central question of how does one go about educating people for management careers," said Stephen A. Ross, professor of economics and finance. Mr. Ross said he was pleased with Mr. Levine's changes in the school.

But another faculty member said he was surprised at the restructuring. "I don't know in what direction the school will move now," said Eric V. Denardo, a professor of operations research.

'The School Was Divided'

"We aren't changing our basic mission," Mr. Levine said. "But we are changing the way we go about our mission by reducing the programs in experiential and clinical learning and emphasizing a broader view of organizational behavior."

However, many students believe the restructuring of the curriculum will lead to the elimination of the school's innovative approach.

"These two programs are the heart and soul of the school," said Allison R. Coleman, a first-year student. "The thing that sets Yale apart from other management programs is that they teach group skills and interpersonal skills."

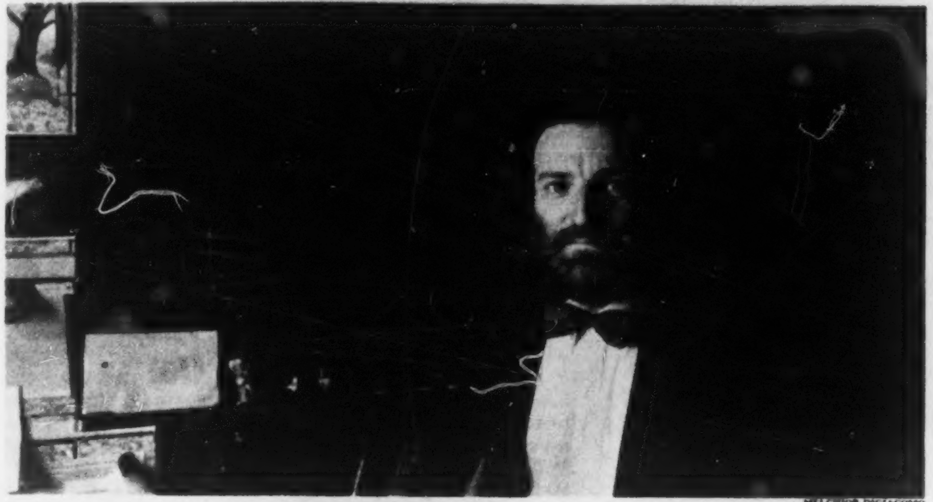
In the furor over the changes in the school's curriculum, Mr. Schmidt has been criticized for appointing Mr. Levine without consulting the school's search committee.

"The school was badly divided about its direction, and I felt it needed to move in new directions," said Mr. Schmidt.

Mr. Schmidt also said that concerns about the direction of the school were unfounded. "Will the school look different? There's no doubt about it. But my aim is not to turn it into a conventional business school."

PORTRAIT

A Quintessential Scholar-Teacher Who Spurns Tenure


MELCHIOR DIGIACOMO

David J. Helfand, who insisted on a renewable contract rather than accept Columbia's offer of tenure: "I made up my mind a long time ago that I wasn't going to participate in it, just like with the draft in the 1970's."

By KIM A. McDONALD

NEW YORK

Sitting through a lecture on supernova remnants may not sound like the most stimulating way to spend an afternoon, but listen to David J. Helfand and the subject will soon rivet you to your seat.

Pacing to and fro on the auditorium floor, Mr. Helfand explains how nearly all of the atoms in our bodies—down to our fingernails—were once forged within the hot interiors of stars. Some of those stars eventually fizzle into planet-sized embers and some—those that are 10 to 36 times the size of our sun—explode in a cataclysmic fireball known as a supernova.

It's all rather mind boggling, to hear Mr. Helfand describe it. A fraction of a second before this titanic explosion, he says, the star's iron core collapses, shrinking the equivalent mass of the sun into a sphere smaller than Manhattan.

The energy released in that sudden collapse blows most of the star apart. Fragments are hurled outward at 10,000 miles a second as the intense heat of the explosion transforms iron into heavier elements—gold, lead, and uranium.

'He Literally Enthralls Them'

Astronomers, Mr. Helfand says, "believe that nearly all of the elements heavier than hydrogen and helium which we see in the universe today were created in stellar interiors and subsequently distributed by supernova explosions."

That means, he adds, that "most of the atomic nuclei in your fingernail used to reside in the center of a massive star."

From the passion in his voice to the animation he puts into his lectures, Mr. Helfand, a professor of physics at Columbia University and chairman of its astronomy department, is inarguably a scholar who loves to teach.

"In David, you have the quintessential scholar and teacher that any research university would like to have more of," said Jonathan R. Cole, vice-president for arts and sciences at Columbia. "He captures the imagination of young people and literally enthralls them when he lectures. He's the kind of person who can convince people that they can make exciting lives for themselves in academia, instead of going off to Wall Street."

Not that teaching is Mr. Helfand's only forte. As a scientist, he has made significant contributions to the knowledge of supernova remnants, particularly of the dense neutron stars that emerge from the cores of supernovas.

He has also discovered a variety of pulsars—rotating neutron stars that appear in the sky like distant lighthouses, flashing beacons of radiation across the universe as rapidly as hundreds of times a second.

With the help of Robert Becker of the University of California at Davis, he is currently surveying a large segment of the Milky Way to find out why only a small fraction of supernova remnants have been discovered with pulsars nearby.

Mr. Helfand's hunch is that past surveys of supernova remnants have missed those with a higher proportion of pulsars and that a more complete survey may find them. He hopes to gain more insight from the pulsar that he expects will emerge from the shell of dust that now envelops Supernova 1987A, the closest and brightest exploding star to appear since the invention of the telescope.

"The fact that we don't see it yet is starting to get troublesome and may be related to the issue of the number of supernova remnants that don't have neutron stars," he says.

If the objects of Mr. Helfand's attention seem unusual, so too was the way in which he was drawn to them. It was, as he tells it, the result of his fondness for playing squash and his opposition to the Vietnam War.

From Drama to Physics

As an undergraduate at Amherst College, Mr. Helfand switched from drama to physics because rehearsals didn't leave him time to play squash. He began studying pulsars when he spent an extra year at Amherst to escape the draft, working on a radio telescope at the nearby Amherst campus of the University of Massachusetts.

"In 1970, they pulled draft numbers and mine was 12, and I was not about to go kill Viet Cong," he explains.

He received his doctorate in astronomy at Massachusetts in 1977, was offered a research position at Columbia, and rapidly moved up through the academic ranks, eventually receiving a tenured professorship in the physics department. But to the surprise of university officials, he turned down the offer of tenure, saying he opposed tenure because it bred mediocrity.

"I made up my mind a long time ago that I wasn't going to participate in it, just like with the draft in the 1970's," he says. "I was told, 'Well, the whole point of tenure is that you can hold these contrary views and that protects you while doing that, so obviously, what you want to do is to join the system and protest it from within.' "

A Review Every 5 Years

Mr. Helfand wanted no part in it. Instead, he persuaded Columbia to give him a renewable contract that required his teaching, research, and community-service activities to be reviewed every five years. It's a system to which, Mr. Helfand thinks, all faculty members at universities should be subjected.

"My contention is that we should hold people accountable to doing those things," he explains. "We want to choose people who will preserve and transmit the culture that we know and advance the frontiers of knowledge."

But the tenure system, he adds, attracts people who are content to rest on their laurels. At many research universities, he adds, the system also fails to select good or particularly dedicated teachers.

Although Mr. Helfand is disappointed that others at Columbia have not joined his tenure boycott, his strong conviction on the issue has won him many admirers.

"We all too often use the term 'role model,' but he holds the highest virtues of the transmission of new knowledge," says Mr. Cole. "He has shown an enormous dedication to the training of future scientists. In general terms, David is the kind of energetic young scholar who represents the best in American higher education."

Note Book

People facing discrimination because they have AIDS can seek legal help from students at Columbia University's Law School.

Sixteen law students enrolled in a course called "AIDS Law Clinic" operate what may be the first law-school clinic to represent clients in AIDS-discrimination cases, says Deborah M. Greenberg, a professor of law at Columbia. Ms. Greenberg teaches the course with Mark A. Barnes, an instructor.

"This is a developing area of the law," Ms. Greenberg says. "New York is second probably only to Los Angeles in the number of AIDS cases." People with AIDS have few legal resources available, she adds.

Students will advise clients in cases involving employment, housing, and health-care discrimination. Clients are referred by social-service agencies.

■

Summer associates at a New York law firm will be able to spend half their summer working for non-profit organizations under a policy intended to increase the number of associates who stay with the firm.

Any student asked to return for a second summer with the firm, Chadbourne & Parker, will have to spend only four weeks at the firm's office. The associates can work the remainder of the summer at a non-profit organization. Jerome C. Katz, a partner in the firm, says it will pay the difference between the salary at the non-profit organization and what the associate would earn at the law firm. Summer associates' salaries are expected to be $1,450 a week next summer.

"This is an innovative way to put good lawyers to work for non-profit organizations," says Mr. Katz. "It also is a good way to bring them back for another summer."

■

College students who start out with clear goals, pursue one course of study, and reside only in campus housing are not the ones most likely to stay in school and to graduate, according to research that challenges the popular notion of the ideal student.

A study conducted at the University of North Carolina at Greensboro found that students who never changed their major had the lowest graduation rates. Those who changed four times had the highest.

Students who had lived both on and off the campus during their college careers had higher retention and graduation rates than students who had lived only in on-campus or off-campus housing.

The old stereotype is a "sacred cow," said Bert Goldman, acting chairman of the Department of Educational Administration, Higher Education, and Educational Research at Greensboro. He and Jacqueline Gillis, a former research associate in the office of institutional research, tracked two classes of freshmen at Greensboro for five years.

Alcohol-Related Problems Have Not Decreased on Most College Campuses, Survey Indicates

Despite efforts to reduce abuse, only 24 pct. of administrators report situation has improved

By DENISE K. MAGNER

Most student-affairs administrators say alcohol-related problems on their campuses are increasing, or at least not lessening, despite greater efforts to reduce alcohol abuse.

A survey being released this week found that 35 per cent of student-affairs administrators thought campus problems involving alcohol had increased in the past several years, and 41 per cent saw no change. When a similar survey was conducted in 1985, 30 per cent said alcohol-related problems had increased.

Colleges are not ignoring the problem. Universities have substantially expanded their alcohol-education and prevention activities since 1985, the survey found. However, only 24 per cent of the officials said alcohol-related problems had decreased this year, compared with 28 per cent who said that in 1985.

'Clear, Strong Trend'

The College Alcohol Survey has been conducted every three years since 1979 by David S. Anderson, associate research professor at George Mason University's center for health promotion, and Angelo F. Gadaleto, associate professor at West Chester University's department of counselor, secondary, and professional education. Questionnaires were sent to student-affairs administrators at 330 institutions for the 1988 survey, and 213 responded.

The survey showed a "clear, strong trend" among colleges toward adopting tougher alcohol-abuse policies and offering more programs, Mr. Gadaleto said. At least 70 per cent of the institutions now offer group counseling for students who are problem drinkers or whose lives are negatively affected by an alcoholic. In

Continued on Page A37

COLLEGE ALCOHOL SURVEY

How Campus Policies Have Changed

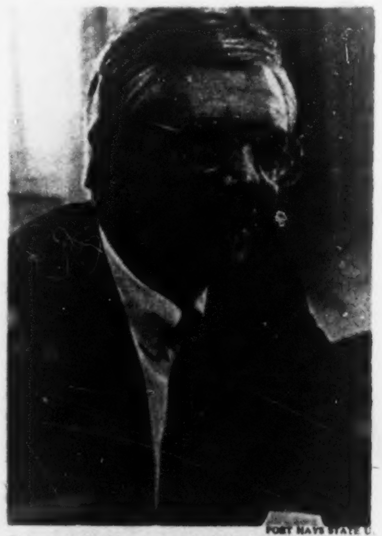
	1979	1988
Drinking beer is permitted on campus.	77%	78%
Drinking hard liquor is permitted on campus.	62%	71%
Non-alcoholic beverages must be offered at public functions where alcohol is served.	54%	92%
Food must be offered at public functions at which alcohol is served.	24%	83%
Alcohol may be advertised as the primary focus of an event.	49%	8%
Campus has alcohol-education and abuse-prevention efforts.	69%	97%
Campus has a group effort, such as a task force or committee, that focuses on alcohol-education issues.	37%	77%
Campus has a person who serves as an alcohol-education coordinator.	14%	60%
Group counseling is available for students who are problem drinkers.	33%	70%
A support group is available for students whose lives are being negatively affected by an alcoholic.	21%	74%
New-student orientation deals with the subject of alcohol abuse.	—	67%
Campus has an awareness week or day for alcohol education and prevention efforts.	13%	90%

The Use of Alcohol and Drugs on Campus: Officials' View of Trends in Recent Years

	Great or some increase	No change	Great or some decrease
Abusive drinking	38%	40%	22%
Frequency of drinking	31%	49%	20%
Drunk driving	13%	41%	46%
Drinking in uncontrolled settings	48%	37%	15%
Alcohol-related behavioral infractions	35%	50%	15%
Use of false identification to purchase alcohol	58%	31%	11%
Use of marijuana	16%	52%	32%
Use of cocaine	40%	32%	28%
Use of PCP	7%	45%	48%
Use of hallucinogens	20%	38%	42%

Note: The figures are based on nationwide surveys of 330 four-year colleges and universities conducted by David S. Anderson and Angelo F. Gadaleto. The response rate in the 1979 survey was 50 per cent; the response rate in the 1988 survey was 64.5 per cent.

Officials Involved in Cutting Substance Abuse by Students Search for 'What Works'



FORT HAYS STATE U.

Edward H. Hammond: "It's ludicrous on Saturday afternoon to ban alcohol from the student section, while the president is serving alcohol in the skybox."

ARLINGTON, VA.

Most college administrators, if asked, can quickly rattle off a list of things they need to prevent alcohol and drug abuse among students. Somewhere on it will be more money for programs and more leadership from university presidents.

But at the top is a want more basic than money and more elusive than leadership. Many of the 160 counselors and researchers who attended a forum on substance-abuse issues in higher education said they needed desperately to learn "what works."

Members of the Network of Colleges and Universities Committed to the Elimination of Drug and Alcohol Abuse gathered here for the forum, their first meeting since the group was organized a year ago. About 750 institutions have joined the network, which was formed to help colleges share information about drug and alcohol programs.

Many colleges are designing institutional drug and alcohol policies using the standards developed by the network this year. However, less guidance is available to administrators about successful prevention, education, and treatment programs, and many at the forum said their efforts often had a "hit-or-miss" quality.

"There is a tremendous desire to learn what works," said Stephen Nelson, dean of students at Bard College. "It comes out of a sense of frustration from hearing criticism and from seeing resources dry up."

'We Are Throwing Millions Away'

But officials looking for definitive answers are likely to come up short. "We are throwing millions of dollars away on good-faith efforts and programs that we *think* work," said Gerardo Gonzalez, associate professor of counseling at the University of Florida. "Little research is available on what actually works and under what circumstances. The irony is that we are research institutions—with no research on alcohol and drug abuse among college students."

A list of research needs was developed

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Revamping of Aid Called Vital for Minority Students

Continued from Page A1

tle was known about the effects of the financial-aid programs. The nation's complex system of student aid, which last year put a record $24.5-billion in federal, state, and institutional aid into the hands of college students, is something of a black box.

"We spend billions and billions of dollars on aid, but we don't know how effective it is," said Arthur M. Hauptman, a higher-education consultant. "During the Reagan-Bennett years, higher education has been under siege," commented Reginald Wilson, a senior scholar at the American Council on Education. "We haven't had the time to find out if what we've protected is worth protecting."

A Controversial Proposal

In a controversial proposal, Robert Zemsky, director of the Institute for Research on Higher Education at the University of Pennsylvania, recommended scrapping the present aid programs and redirecting that money to elementary and secondary education.

"Despite nearly two decades of massive investment in student-aid programs by both state and federal agencies, and the adoption by most institutions of largely open admissions policies, college participation rates have not substantially changed," Mr. Zemsky said at the conference, which was sponsored by the public-policy program at the College of William and Mary.

Mr. Zemsky based his conclusions on Census Bureau statistics covering the period from 1973 to 1986. They trace the college-participation rate of people aged 19 to 21 and the proportion of 19-year-olds who hold high-school diplomas. His analysis showed that while the participation rate of black women had grown over the period, it lagged behind that of white women. Among black men, the rate was essentially stable, remaining far below that of white men.

Examining the educational backgrounds of 19-year-olds, he found similar trends, with gains in the proportion of black women holding high-school diplomas and no significant increase among black men.

Using the same source of data, Mr. Zemsky also found that among white 19-year-olds, the college-going rate of men with lower incomes remained level over the period, while the rate for lower-income women increased gradually. Those men and women with lower incomes were less likely to attend college than those with higher incomes.

"One has simply to look at the unchanging graphs of college-participation rates over the last 15 years to conclude that federal and state programs have made no difference for black or lower-income males," Mr. Zemsky said. "The sustained increase for females, on the other hand, is true for all groups, suggesting that the increase is largely a function of the recent redefinition of female roles in American society."

Mr. Wilson disagreed with Mr. Zemsky's analysis and rejected his conclusion. Examining the behavior of a broader group—18- to 24-year-olds—shows the college-participation rate of blacks fell over the last 15 years while the proportion of blacks with high-school diplomas grew, he said. He said factors besides aid could affect the college-going rate, including shifts in social values and the enforcement of civil-rights laws.

"I don't want to get into a zero-sum game between elementary and secondary education and higher education," Mr. Wilson continued. "We need to do both, and we don't need to be choosing between them."

Better Distribution Sought

Said Mr. Hauptman: "Federal student aid has historically not been distributed in an efficient way. Perhaps the best that can be said is participation rates would have dropped without financial aid."

Rather than abandon aid programs, he urged the federal government to do a better job of directing aid to the neediest students and provide them larger grants, to simplify the process of applying for aid, to sponsor experimental programs to test new ideas, and to spend more on evaluating existing programs.

He and others also recommended that public institutions raise their tuition charges and use the additional revenue for need-based aid. "Low tuition is the primary vehicle for access, but it has detracted from the goals of choice and budgetary efficiency," said Mr. Hauptman.

Franklyn G. Jenifer, chancellor of the Massachusetts Board of Regents of Higher Education, said shifting money from the middle class would be difficult. "We need to reallocate money, but it's extraordinarily hard to do because most middle-class people think they have a tough time, and they do."

Sen. Paul Simon, Democrat of Illinois, condemned the shift from grants to loans as the primary source of student aid. "With respect to cost, loans are discriminatory," he said. "If you're a white male, you're going to earn more than if you're a female or minority."

He urged that spending on Pell Grants be increased, and that the program, which last year distributed some $3.7-billion to needy undergraduates, be made an entitlement. To help the middle class, Mr. Simon proposed that eligibility be eased for Stafford Loans, the government's largest aid program.

Warning of tight budget prospects, others at the conference said expanding the present aid programs was unlikely. "The deficit dominates the public-policy debate today like Vietnam did in the late 1960's," said Terry M. Hartle, chief education adviser to the Senate Labor and Human Resources Committee. "I don't think there will be more money for higher education."

U. OF PENNSYLVANIA

Robert Zemsky: "Federal and state programs have made no difference for black or lower-income males."

Alcohol-Related Problems Are Not Declining, Survey Finds

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1985, only half the campuses reported offering such support groups.

While alcohol-education and treatment efforts may be stronger, Mr. Anderson said, "with a few exceptions, drinking patterns of students remain the same."

His contention was backed up by a study released last week by Ruth C. Engs, associate professor of applied health science at Indiana University, and David J. Hanson, professor of sociology at the State University of New York College at Potsdam.

Ms. Engs and Mr. Hanson surveyed 3,375 college students in 1987-88 and found that the proportion who drank continued to decline slightly. The number of student drinkers has decreased slowly ever since states across the nation began raising the legal drinking age.

But the proportion of heavy drinkers—those who consume six or more drinks at one sitting more than once a week—has remained constant, at about 20 per cent. The proportion of underage students who drank was higher than that of legal-age students who drank.

Campuses Imposing New Rules

"In other words, the overall decline means the Goody Two-shoes have stopped drinking," Ms. Engs said. "But they weren't drinking much in the first place. We found no change in problem drinking."

The number of institutions that allow students to consume beer and liquor on their campuses has hardly changed since 1979, according to the survey of student-affairs administrators. But the conditions under which alcohol is permitted on campuses have become more stringent, the survey found.

The number of colleges that allowed beer in dormitory rooms dropped to 58 per cent this year from 71 per cent in 1985. Meanwhile, the proportion of colleges allowing beer at the student union rose to 61 per cent in 1988 from 50 per cent in 1985.

> "In other words, the overall decline means the Goody Two-shoes have stopped drinking."

And more colleges allowed beer to be consumed outdoors on their campuses—41 per cent this year compared to 28 per cent in 1985. The same held true for hard liquor. The survey did not ask about wine.

"Colleges appear to be reducing the alcohol allowed in dormitory rooms and hallways and increasingly allowing it in student unions and places where it can be controlled," Mr. Gadaleto said.

Nearly half of the administrators said drinking in uncontrolled settings, such as private parties, had increased.

Alcohol-education coordinators, counselors, housing officials, and deans of students are leading the campaign to reduce substance abuse, the survey showed.

Two segments of the college community with perhaps the greatest daily influence over students—academic departments and intramural-recreation offices—provide the least leadership, the survey found. More than 80 per cent of the administrators said the departments and sports offices provided little or no leadership in alcohol education and prevention. And 65 per cent said student-government associations also provided little or none.

Alcohol prevention and education is offered by 97 per cent of the colleges surveyed. Since 1985, the number of institutions that employ alcohol-education coordinators has risen from 48 per cent to 60 per cent.

Despite those efforts, the survey found that alcohol was involved in campus problems with increasing frequency. It was a factor in more than half of the incidents that resulted in physical injury, violent behavior, violation of campus policies, and damage to dormitories and other campus buildings.

Substance-abuse programs offered by colleges must "counter millions of dollars in advertising and the strong role alcohol has in the American culture," Mr. Anderson said. "We need to be more creative in our efforts. We seem to want simple answers, and there are no simple answers."

Among other survey findings:

■ Between 1979 and 1985, a growing number of administrators said alcohol-related problems were decreasing. Those numbers gave officials hope, but this year the trend was reversed.

■ About 60 per cent of colleges now collect survey data about student drinking, compared to 44 per cent in 1985.

'What Works' in Fighting Drug Abuse

Continued from Page A35

by the forum and will be included in a report sent to the next President and Congress. The forum called for investigation of the causes and motivations behind student alcohol and drug abuse, of the abuse problems experienced by institutions of differing size and type, and of the costs and benefits of different programs.

In addition to the forum's report, the network itself is recommending that the U.S. Department of Education create a special panel to set the nation's research agenda for the struggle against drug and alcohol abuse, said Robert F. Ariosto, dean of student affairs at Central Connecticut State University.

"The research we have tends to be survey data," Mr. Ariosto said. "We need to look at the work that's been done and its effectiveness. Sketchy data indicate peer influence is good, but what is its real impact? How effective are some of these programs?"

Colleges must look beyond their own campuses and accept responsibility to study the reasons behind the pervasiveness of drugs in American society, said Gloria Scott, president of Bennett College.

"When an 18-year-old kid is found on the edge of campus with bullets in his head because of a bungled drug deal, when registration is interrupted because SWAT teams must move in on a drug sale, when do we deal with the source questions?" asked Ms. Scott, referring to incidents that she said had taken place at one Southern university. "The role of the academy is to explore this."

Counseling and Courses

Lacking research, officials at the forum said they were trying a range of tactics to persuade students to avoid drugs and alcohol, or at least to make responsible decisions when using alcohol.

Many programs use peer counseling to help students with alcohol or drug problems. Some institutions are offering academic courses on the subject for credit, while others are inviting police to give Breathalyzer demonstrations on campus.

Another effort cited as successful by some officials was called the "Donahue approach," in which students relate their experiences in question-and-answer sessions. One university even brought to its campus a wrecked car that had been involved in a drunken-driving accident, although most educators at the forum said such "scare tactics" were typically unsuccessful.

While administrators at the forum were interested in learning how to influence student behavior, most were not interested in assuming parental obligations. When Lee I. Dogoloff, executive director of the American Council for Drug Education, suggested that the answer to alcohol and drug abuse might be a return to *in loco parentis*, his idea was rebuffed.

Making 'Proper Decisions'

"To revert back to a time when students were considered 'children of tender years' would be a catastrophic response to the problem," said Edward H. Hammond, president of Fort Hays State University. Colleges and their presidents must recognize the severity of substance-abuse problems and create an environment on the campuses where students can learn to make "proper decisions," he said.

Substance-abuse policies and programs, to be effective, must address faculty members and alumni, and not simply focus on students, many administrators at the forum said.

For instance, Mr. Hammond said, at football games it would be "ludicrous to ban alcohol from the student section while the university president is serving alcohol in the skybox. At Fort Hays, the president gets Pepsi in the skybox."

At Saint Mary's College, traditions that had alcohol components have been redesigned, said President William A. Hickey. Instead of giving vintage bottles of wine to faculty members at Christmas, the college gives pen and pencil sets.

The tendency on campuses is to view alcohol and drug problems as the responsibility of student-affairs officers, making it difficult to arouse the interest of faculty members or university presidents, many administrators said.

Janet H. McKay, assistant provost at Princeton University, said that because faculty members operate autonomously, "they sometimes hesitate to refer students because they don't know services exist or they don't want to get involved."

Federal grants provided to colleges for drug prevention through the Fund for the Improvement of Postsecondary Education were lauded as a highly effective way to get an institution's program off the ground. However, many college officials whose drug-prevention grants were expiring said they feared their universities would not replace the financing unless the programs showed significant progress. But, they said, it was difficult to show change in one or two years. —DENISE K. MAGNER

FACT FILE: Additional Tuition and Fee Data for 1988-89

The following are tuition and fees charged undergraduates at 278 colleges and universities for the 1987-88 and 1988-89 academic years, including, for 1988-89, the additional tuition that many public institutions charge to out-of-state students. The figures supplement a table of costs at 2,700 institutions that appeared in the August 10 issue of *The Chronicle*.

In addition to listing institutions not previously reported, the table includes corrected figures for the Kansas City Art Institute, Rutgers College of Rutgers University, the University of Illinois at Chicago, and the University of Pittsburgh main campus.

The figures in both tables were collected by the College Board in its Annual Survey of Colleges 1988, and the tuition report was prepared by the board's College Scholarship Service. (Copyright © 1988 by the College Entrance Examination Board. All rights reserved.)

	1987-88	1988-89	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
ALABAMA			
Alabama A&M U	$1,134	$1,134	$892
Auburn U main campus	1,323	1,323	2,646
Jacksonville St U	1,000	1,100	400
Troy St U main campus	1,200	1,260	630
U of Alabama			
Tuscaloosa	1,500	1,642	2,414
ARIZONA			
Arizona Western C	408	456	3,720
Mohave CC	294	480	3,270
Northland Pioneer C	120	144	2,300
Phoenix C	615	675	3,750
Rio Salado C	615	675	3,750
South Mountain CC	615	675	3,750
ARKANSAS			
U of Arkansas Monticello	1,100	1,155	1,490
U of Central Arkansas	1,080	1,080	1,050
CALIFORNIA			
California St U			
Bakersfield	734	792	4,680
Chico	754	804	4,680
Dominguez Hills	712	766	4,680
Fresno	766	816	4,680
COLORADO			
Adams St C	1,220	1,292	1,964
Aims CC	552	627	2,988
Colorado Sch of Mines	3,308	3,476	5,582
Colorado St U	1,800	1,897	3,686
CC of Denver	864	900	2,484
Fort Lewis C	1,836	1,911	4,731
Front Range CC	861	897	2,448
Mesa C	1,220	1,268	1,990
Morgan CC	816	852	2,448
Otero JC	930	966	2,448
Pikes Peak CC	856	906	2,448
Pueblo CC	860	895	2,448
Trinidad St JC	1,022	1,078	2,448
U of Colorado			
Boulder	1,860	1,924	5,878
Colorado Springs	1,375	1,506	3,034
Health Sciences Center	2,892	3,051	6,014
U of Southern Colorado	1,356	1,412	3,436
Western St C of Colorado	1,376	1,454	2,466
CONNECTICUT			
Central Connecticut St U	1,373	1,549	1,980
Eastern Connecticut St U	1,382	1,550	1,980
Southern Conn St U	1,238	1,388	1,980
DELAWARE			
Delaware St C	1,000	1,100	1,450
FLORIDA			
Brevard CC	660	720	720
Broward CC	642	688	750
Central Florida CC	660	683	690
Chipola JC	608	668	672
Daytona Beach CC	699	699	801
Edison CC	733	733	765
Florida A&M U	1,079	1,124	2,489
FLORIDA—Continued			
Florida Atlantic U	$1,104	$1,206	$2,489
Florida International U	1,079	1,135	2,489
Florida Keys CC	600	660	660
Florida St U	1,100	1,130	2,489
Lake City CC	630	660	660
Miami-Dade CC	738	738	945
New C of U of South Fla	1,134	1,311	2,987
Okaloosa-Walton JC	600	600	600
Pensacola JC	728	728	667
Santa Fe CC	660	660	660
Seminole CC	690	690	630
Tallahassee CC	600	600	600
U of Central Florida	991	1,155	2,615
U of Florida	1,090	1,144	2,489
U of North Florida	1,111	1,128	2,489
U of South Florida	1,124	1,179	2,489
U of West Florida	1,082	1,116	2,489
IDAHO			
Boise St U	1,098	1,180	1,900
Idaho St U	1,000	1,000	1,900
Lewis-Clark St C	1,008	1,040	1,900
U of Idaho	1,042	1,048	2,000
ILLINOIS			
Columbia C	4,648	4,680	0
International Academy			
of Merchandising			
and Design	4,995	5,799	0
U of Illinois Chicago	2,202	2,697	3,540
IOWA			
Clinton CC	1,004	1,335	600
Iowa Central CC	1,098	1,198	550
Muscatine CC	1,004	1,335	600
Scott CC	1,018	1,328	600
KANSAS			
U of Kansas	1,325	1,380	2,430
Wichita St U	1,399	1,422	2,430
KENTUCKY			
Career Com JC			
of Business	3,375	3,725	0
Henderson CC	560	580	1,160
Kentucky St U	1,120	1,160	2,080
U of Kentucky	1,412	1,540	2,720
LOUISIANA			
Delgado CC	830	980	1,200
Grambling St U	1,208	1,508	1,350
Louisiana St U			
Alexandria	820	924	1,472
Eunice	830	890	1,500
Shreveport	1,200	1,320	1,920
McNeese St U	1,247	1,396	1,350
Nicholls St U	1,238	1,391	1,440
Northeast Louisiana U	1,248	1,413	1,140
Northwestern St U of La	1,335	1,479	1,350
Southeastern La U	1,231	1,484	1,440
Southern U Shreveport			
Bossier City	700	750	1,030
U of Southwestern La	1,231	1,323	1,650
MARYLAND			
Chesapeake C	$886	$984	$3,126
MASSACHUSETTS			
Berkshire CC	940	1,038	1,920
Cape Cod CC	944	1,004	1,920
Holyoke CC	938	1,218	1,920
Massachusetts Bay CC	1,008	1,068	1,920
Massachusetts C of Art	1,486	1,594	2,556
Mass Maritime Acad	1,460	1,544	2,556
Massasoit CC	876	1,028	1,920
Mount Wachusett CC	892	1,080	1,920
Quincy JC	1,890	1,900	0
Quinsigamond CC	932	1,030	1,920
Salem St C	1,172	1,408	2,496
Springfield Technical CC	898	982	1,920
U of Lowell	1,528	1,770	2,904
Westfield St C	1,305	1,413	2,496
MICHIGAN			
Alpena CC	1,194	1,466	1,428
Grand Valley St U	1,632	1,794	2,406
Macomb CC	1,025	1,070	900
Michigan St U	2,546	3,090	4,129
Michigan Tech U	1,950	2,367	2,805
Oakland U	1,716	2,046	3,390
Saginaw Valley St U	1,725	1,995	1,935
U of Michigan			
Dearborn	2,098	2,324	4,664
Flint	1,700	1,954	4,306
Western Michigan U	1,618	1,866	2,657
MINNESOTA			
St Paul Tech-Voc Inst	1,538	1,335	1,305
MISSISSIPPI			
Coahoma JC	700	700	1,400
Delta St U	1,470	1,470	1,182
U of Southern Mississippi	1,675	1,675	1,182
MISSOURI			
East Central C	600	600	660
Kansas City Art Inst	7,800	8,200	0
Missouri Western St C	1,100	1,154	1,020
St Louis CC			
Florissant Valley	795	855	630
Meramec	795	855	630
MONTANA			
Western Montana C	1,167	1,167	1,458
NEBRASKA			
Kearney St C	1,169	1,239	690
Peru St C	1,142	1,238	690
Wayne St C	1,151	1,266	690
NEW JERSEY			
Burlington County C	935	935	2,200
Camden County C	934	1,020	60
County C of Morris	966	1,140	1,814
Kean C of New Jersey	1,590	1,756	600
Montclair St C	1,703	1,857	720
New Jersey Inst of Tech	2,944	3,220	2,600
Rutgers U Rutgers C	2,562	2,744	2,280
NEW MEXICO			
Albuquerque Tech			
Voc Inst	570	642	1,296
Northern New Mexico CC	432	468	948
Western New Mexico U	844	904	2,898
NEW YORK			
Corning CC	1,440	1,440	1,350
Dutchess CC	1,415	1,415	1,350
Herkimer County CC	1,260	1,345	1,225
Long Island U			
Brooklyn campus	6,815	7,355	0
Nassau CC	1,440	1,440	1,350
Rockland CC	1,275	1,380	1,300
Schenectady County CC	1,293	1,453	1,350
NEW YORK—Continued			
St U of New York			
C at Purchase	$1,495	$1,530	$2,600
C of Tech at Alfred	1,485	1,485	2,600
C of Tech at Delhi	1,485	1,515	2,600
Maritime C	1,615	1,615	2,600
Westchester CC	1,493	1,493	2,025
NORTH CAROLINA			
Anson Technical C	242	244	1,881
East Carolina U	842	878	3,838
North Carolina A&T St U	889	899	3,838
North Carolina Central U	894	894	3,838
Pembroke St U	706	716	3,372
Rockingham CC	252	252	1,881
U of North Carolina			
Charlotte	779	821	3,838
Greensboro	989	1,053	3,954
NORTH DAKOTA			
Standing Rock C	1,270	1,570	0
OKLAHOMA			
Cameron U	765	1,043	1,485
Central St U	727	1,001	1,485
Connors St U	618	765	1,260
East Central U	746	1,020	1,485
Langston U	812	1,093	1,485
Mid-America Bible C	3,488	3,632	0
Northeastern Okla A&M C	573	720	1,260
Northeastern St U	758	1,020	1,485
Northern Oklahoma C	558	705	1,260
Northwestern Okla St U	730	1,014	1,485
Okla Panhandle St U	811	1,085	1,485
Oklahoma St U	974	1,274	2,340
Tech Branch-			
Oklahoma City	744	877	2,370
Rose St C	546	683	1,260
Southeastern Okla St U	731	1,020	1,485
Southwestern Okla St U	716	990	1,485
Tulsa JC	603	765	1,260
U of Oklahoma			
Health Sciences Center	1,081	1,276	2,805
Norman	1,000	1,264	2,340
U of Sci and Arts of Okla	716	998	1,485
Western Oklahoma St C	573	720	1,260
OREGON			
Eastern Oregon St C	1,452	1,512	0
Oregon St U	1,506	1,604	2,868
Rogue CC	720	720	2,295
Southern Oregon St C	1,521	1,596	2,451
U of Oregon	1,556	1,649	2,868
Western Oregon St C	1,503	1,569	2,451
PENNSYLVANIA			
California U of Pa	2,120	2,420	1,422
Cheyney U of Pa	2,095	2,190	1,422
East Stroudsburg U of Pa	2,034	2,334	1,422
Edinboro U of Pa	2,120	2,420	1,422
Indiana U of Pa	2,054	2,404	1,422
Lincoln U	2,130	2,350	900
Lockhaven U of Pa	1,995	2,310	1,422
Mansfield U of Pa	2,055	2,354	1,422
Millersville U of Pa	2,040	2,350	1,422
Pennsylvania St U			
Allentown	3,126	3,494	3,754
Altoona	3,126	3,494	3,754
Beaver	3,126	3,494	3,754
Berks	3,126	3,494	3,754
Delaware County	3,126	3,494	3,754
Du Bois	3,126	3,494	3,754
Erie Behrend	3,292	3,610	3,638
Fayette	3,126	3,494	3,754
Harrisburg	3,292	3,610	3,638
Hazelton	3,126	3,494	3,754
McKeesport	3,126	3,494	3,754
Mont Alto	3,126	3,494	3,754
New Kensington	3,126	3,494	3,754
Ogontz	3,126	3,494	3,754
Schuylkill	3,126	3,494	3,754
Shenango	3,126	3,494	3,754
U Park	3,292	3,610	3,638
PENNSYLVANIA—Continued			
Wilkes-Barre	$3,126	$3,494	$3,754
Worthington-Scranton	3,126	3,494	3,754
York	3,126	3,494	3,754
Pennco Tech	4,365	4,800	0
Reading Area CC	1,254	1,320	2,520
Shippensburg U of Pa	2,066	2,396	1,422
Slippery Rock U of Pa	2,132	2,442	1,422
Thomas Jefferson U			
C of Allied Health Sci	8,500	9,200	0
U of Pittsburgh	3,486	3,836	3,680
West Chester U of Pa	1,985	2,350	1,422
Westmoreland Co CC	1,035	1,193	2,490
SOUTH CAROLINA			
Chesterfield-			
Marlboro Tech C	680	720	400
Clemson U	2,090	2,220	3,450
Lander C	1,820	1,970	450
South Carolina St C	1,450	1,450	1,530
Tri-County Tech C	600	600	588
U of South Carolina			
Aiken	1,400	1,600	1,740
Beaufort	1,200	1,350	1,520
Coastal Carolina C	1,400	1,600	1,840
Lancaster	1,200	1,350	1,520
Salkehatchie	1,200	1,350	1,520
Spartanburg	1,400	1,600	1,840
Sumter	1,200	1,350	1,520
Union	1,200	1,350	1,520
Winthrop C	2,070	2,070	1,586
TENNESSEE			
Austin Peay St U	1,227	1,282	2,736
Cleveland St CC	687	724	2,430
East Tennessee St U	1,134	1,202	2,736
Jackson St CC	687	726	2,430
Memphis St U	1,296	1,354	2,736
Middle Tenn St U	1,104	1,152	2,736
Motlow St CC	687	730	2,430
Nashville St Tech Inst	681	716	2,430
Roane St CC	687	724	2,430
St Tech Inst			
Knoxville	687	726	2,430
Memphis	684	718	2,430
Tennessee St U	1,148	1,202	2,736
Tennessee Tech U	1,190	1,281	2,736
U of Tennessee			
Chattanooga	1,228	1,282	2,734
Knoxville	1,404	1,466	2,734
Martin	1,254	1,330	2,734
Memphis	1,203	1,287	2,734
Volunteer St CC	687	726	2,430
Walters St CC	684	722	2,430
TEXAS			
Bee County C	300	330	3,344
Galveston C	292	422	480
Huston-Tillotson C	3,650	3,950	0
Laredo JC	484	484	910
Navarro C	680	680	156
VERMONT			
U of Vermont	3,440	3,726	7,050
VIRGINIA			
Christopher Newport C	1,920	1,630	1,030
Danville CC	763	783	3,031
Eastern Shore CC	772	788	3,031
George Mason U	1,824	2,040	2,198
Piedmont Virginia CC	763	789	3,031
Richard Bland C	1,260	1,350	1,980
Va Commonwealth U	2,315	2,415	3,100
WEST VIRGINIA			
Fairmont St C	922	970	1,580
Parkersburg CC	750	624	1,464
Southern West Va CC	600	624	1,464
West Va Northern CC	600	630	1,464
West Virginia St C	938	992	1,580
West Virginia U	1,316	1,400	2,130
Potomac St C	930	978	1,580

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New geological discoveries have intensified the debate over the extinction of the dinosaurs: Page A4.

Philosophers met to discuss how to communicate their concepts to a wider audience: Page A4.

After a tough legislative fight to increase higher-education spending, Mississippi's Governor says the real battle is about to begin: Page A16.

Three judges will hear a plan to eliminate racial segregation in Louisiana's universities: Page A16.

Brimming with advice, educators and scientists are getting ready for a Bush Cabinet and staff: Page A18.

Fund-raising foundations at two universities have come under fire for political activities: Page A21.

Grambling State U. has bucked the nationwide trend of low passing rates by minority students on standardized teacher tests: Page A23.

Memphis State U. has started a program that emphasizes academics for its athletes: Page A27.

A British government proposal to replace most grants to college students with guaranteed loans has run into a flurry of challenges: Page A31.

Three pro-Palestinian student organizations were suspended by the Hebrew University of Jerusalem for a campus demonstration: Page A31.

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Co[illegible]rvative Scholars C[illegible] a Movement to 'Reclaim' Academy

By CAROLYN J. MOONEY

NEW YORK

Frustrated by what they describe as affirmative-action policies that ignore merit, teaching that is tainted by political ideology, and an academic climate that is hostile to conservatives, a group of 300 scholars closed ranks here this month and called for a national movement to "reclaim the academy."

The meeting was the first major assembly of the National Association of Scholars. The 500-member organization was formed a year and a half ago to provide a forum for professors who believe that a "radicalization" of American higher education has led to a decline in academic standards.

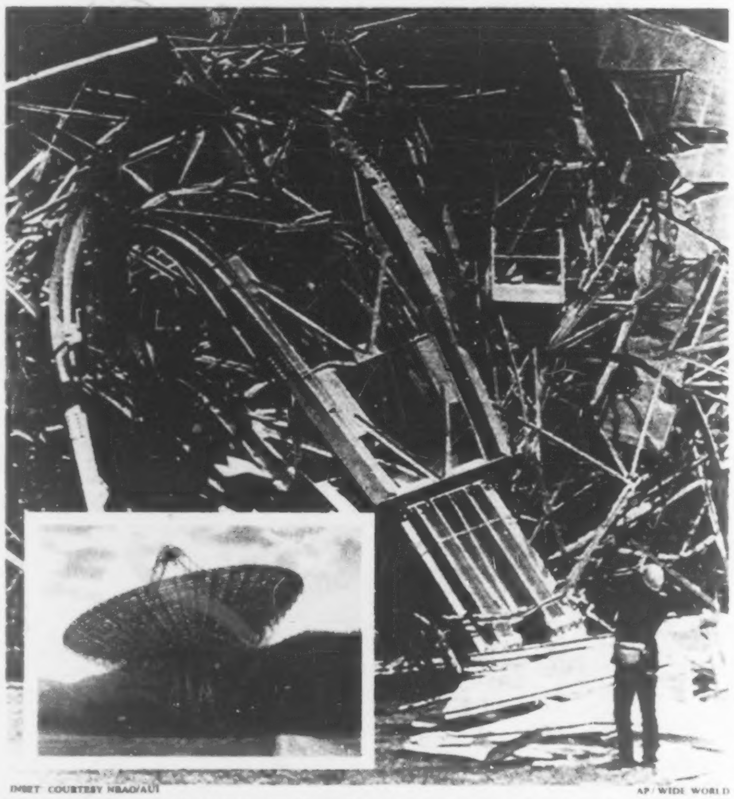
Punctuated by lively speeches and horror stories about academic quality and the demise of the core curriculum, the three-day conference seemed to serve as a rallying point for academics who were pleased to encounter so many like-minded colleagues. Many conferees described themselves as conservative—intellectually, politically, or both.

"I had the feeling I died and went to heaven," confessed one professor.

Said Robin Fox, a Rutgers University

Continued on Page A11

300-FOOT RADIO TELESCOPE COLLAPSES



INSET COURTESY NRAO/AUI

AP/WIDE WORLD

The Green Bank radio telescope (inset), operated by a consortium of universities, collapsed mysteriously last week, leaving this pile of twisted metal: Page A5.

Officials Assail Use of Test Scores to Rank Colleges, Call on Institutions to Stop Reporting Averages

By JEAN EVANGELAUF

WASHINGTON

The presidents of the American Council on Education and the College Board last week condemned the use of standardized admissions test scores to rank colleges, calling it "a clear misuse which should be curbed."

In an open letter sent to thousands of educators, Robert H. Atwell of the A.C.E. and Donald M. Stewart of the College Board said they felt compelled to speak out because of the proliferation of ratings of colleges by the press. Such ratings, they said, "tend to be based excessively on quantitative indicators such as test scores and by and large do not serve the public well."

Admissions test scores are just one measure of the quality of incoming students, they wrote, adding that the quality of new students, however measured, "does not necessarily say anything useful about the quality of what goes on in a college or university—about student growth, or 'value added' upon graduation."

To stem the abuse of test results, they called on colleges to stop reporting average or median scores. Instead, they urged them to report a "score range" covering the middle 50 per cent of admitted students, saying that showing scores earned by those in the 25th percentile and the 75th percentile would emphasize the diversity of test scores at individual institutions and highlight the overlap of scores among institutions.

"This simple action," they wrote, "could go far towards 'de-hyping' the market for college ratings and related information."

Such a move, they added, could also

Continued on Page A26

Major publishers of standardized tests have pledged to strive to produce tests that are fair, accurate, and unbiased: Page A26.

Security Officials Ask Researchers Not to Make 'Virus' Copies Available

By JUDITH AXLER TURNER

Federal security officials have asked researchers not to share copies of the computer-network virus that attacked 6,000 scientific and academic computers this month.

"This code could readily be modified to be used against other systems," said Eugene Myers, chief of the secure-architectures branch of the National Computer Security Center, a division of the National Security Agency.

The agency has brought pressure on re-

Continued on Page A12

Gorbachev Hints at Shortening Military Service Amid Broad University Discontent Over Draft

By PATRICIA LEGRAS

MOSCOW

Indications are growing that the Soviet Union wants to change its policy on the military draft, which since 1982 has required 18-year-old male students to interrupt their university studies for two years in the army or three years in the navy.

President Mikhail S. Gorbachev has hinted that the length of mandatory service would be reduced, and a senior army officer has suggested that a smaller army, composed mainly of professionals, might be more appropriate to the country's present needs.

Western sources estimate that the Soviet Army has 5 million troops.

Mr. Gorbachev, appearing at a meeting of the *Komsomol*, or Young Communist League, said: "In general, we must discuss the question of army service and call-up. I believe the length of service will be considered, and it could be changed."

His comment came after a teen-ager at the meeting asked whether the length of

Continued on Page A32

MARGINALIA

From *Atlantic Sun*, the student weekly at Florida Atlantic University:

"If there is one thing that FAU lacks that cannot be blamed on the administration, it is poor attendance at the sporting events on campus."

Build a bigger stadium, is our suggestion.

■

Headline in *The Lantern*, the daily at the Ohio State University:

ROTC HOLDS
REPELLING CLINIC TODAY

We've been to *lots* of those, in our time.

■

From the University of Toronto *Bulletin*:

"Training our own majors and specialists and providing for undergraduate general education are not necessarily incompatible goals, but it is difficult to accommodate both. One answer may be to abolish the three-year degree in order to make room for both intensive training in a discipline and a carefully constructed breath requirement."

It's been a lung time coming.

■

From *Mosaic*, a newsletter from the University of Notre Dame libraries:

"The meeting was called to order at 2:00 p.m. in the faculty lounge by the Director of Libraries, Robert C. Miller. He announced that the agenda for the afternoon was busy . . ."

We'll call it back, later.

■

With hopes high, we bought a software program called Grammatik III, which promised to "proofread reports, memos, and letters for mistakes in grammar, style, usage, spelling, and more."

Our hopes were high, that is, until we came across this paragraph early in the accompanying manual:

"If only want to see the problems Grammatik III finds, and don't want a corrected or marked copy, then you can check in *Read only* mode. Grammatik III will only read the original file and show you the potential problems it find, but won't make any changes or create any marked or corrected copy."

Can we have our money back?

■

Letter to the editor of *Maine*, a magazine from the University of Maine Alumni Association:

"The Spring '88 issue of MAINE contained an article entitled, 'Change the Stein Song?' Please add one more angry protest to Professor Markowsky's proposal.

"I would assume he would also like to change the words of the Star Bangled Banner. . . ."

We kind of like them the way they are. —C.G.

In Brief

New Campus Is Approved for Cal. State System

Trustees of the California State University system last week approved a plan to open a new campus in the northern San Diego County area. It would become the system's 20th campus and the first to be opened in 23 years.

Under the plan, an off-campus branch of San Diego State University that was started in 1979 in San Marcos would be converted into an independent campus on a 300-acre site. It would open in 1992. The plan is subject to the approval of the California Postsecondary Education Commission and the state Legislature.

The new campus was prompted by extensive growth in northern San Diego County. That growth has contributed to overcrowding at San Diego State University, which, with 35,000 students, is now the system's largest campus.

$6-Million in Cuts Sought at Fairleigh Dickinson U.

The president of Fairleigh Dickinson University has proposed cutting academic programs, selling property, and eliminating some faculty and administrative positions to offset an expected $6-million budget deficit next year.

If the university's Board of Trustees approves the plan next month, a total of 14 programs on the university's three campuses will be phased out beginning next fall, said Alice Olick, a university spokeswoman.

Old homes on the periphery of the Rutherford campus—now used as university administrative offices—will be sold, Ms. Olick said. The faculty and administrative positions affected by the cuts will be eliminated primarily through attrition, she added.

Ms. Olick said the budget deficit had resulted from the university's spending on environmental cleanups and new fire-safety measures, and its decision to write off more than $1-million in uncollected student loans.

SAKHAROV SIGNS IN AT LAST

NATIONAL ACADEMY OF SCIENCES

With his stepdaughter looking on, Andrei D. Sakharov signs the register of the National Academy of Sciences, to which he was elected in 1973. A space had been held open for him since then.

Georgia Tech Is Allowed to Restart Reactor

The Nuclear Regulatory Commission last week gave permission to the Georgia Institute of Technology to start up a campus nuclear reactor that had been shut down this year because of violations of safety procedures.

In January the commission stopped all experiments at the reactor involving the deliberate exposure of materials to radiation. The commission said then that an unannounced inspection of the reactor's records had turned up evidence of an incident in which radiation had been improperly released. The university responded by closing down the reactor completely, by reviewing safety procedures, and by reassessing the role of the reactor in campus research.

Last week the staff of the commission's Atlanta office, while allowing the institute to restart the reactor, also said they were proposing a $5,000 fine for the breakdown in management of the reactor that they said had occurred before the reactor's shutdown. The poor management, the commission staff said, had led to a failure to follow safe and proper procedures at the reactor.

Georgia Tech's President John P. Crecine said the institute did not plan to appeal the fine proposed by the regional office.

18 at Northwestern Jailed in Protest of CIA

Eleven students were among 18 people arrested at Northwestern University last week for illegally protesting a visit by recruiters for the Central Intelligence Agency.

The protest, which involved some 60 people, took place outside Scott Hall, where the university's career-placement center is housed. Evanston, Ill., police and Northwestern security officers made the arrests after protesters ignored orders to stop blocking an entrance to the building.

Police charged the 18 with disorderly conduct and disobeying a police officer and released them on their own recognizance.

About 30 students held a counter-demonstration nearby to promote free speech on the campus and free access to recruiters.

U. of Washington Sets Arts Requirement

Beginning in 1992, the University of Washington will require entering freshmen to have completed at least a half year of high-school courses in the fine or performing arts.

Arthur Grossman, associate dean in the university's College of Arts and Sciences, said the requirement would send a message to high schools that the arts are not peripheral to education.

University officials said the re-

Nader Unit Seeks Disclosure of Harvard Professors' Corporate Ties

CAMBRIDGE, MASS.

A watchdog organization sponsored by Ralph Nader published two reports last week that criticize Harvard University for keeping faculty members' ties with business and government secret.

The authors argue that the public needs to know about such relationships to understand the conflicting interests at work in professors' research and teaching.

"Scholars, Inc.: Harvard Academics in Service of Industry and Government" and "The New Classified Research: Corporate Sponsored Biomedical Research and the Reign of Secrecy at Harvard University" were released by Harvard Watch, a two-person team of Harvard seniors, Jaron Bourke and Robert Weissman. Harvard Watch was formed by Mr. Nader, the consumer advocate.

"Scholars, Inc.," by Mr. Weissman, contends that Harvard academics hold 38 positions on the boards of directors of Fortune 500 companies and have more than 60 ties to the biotechnology industry. At the business school, he says, at least 110 of the 180 faculty members have a total of 500 corporate connections.

University Called Negligent

"Faculty who sit on the boards of a half dozen companies or are involved in extensive consulting relationships are inevitably strapped for time," he writes. "Professorships, though, are full-time jobs, for which professors receive full-time pay."

Mr. Weissman also says that as professors become more dependent on "outside patrons," they become less likely to view their research with a detached and critical eye.

In "The New Classified Research," Mr. Bourke condemns Harvard for failing to disclose information about corporate-sponsored biomedical research conducted by faculty members and for failing to report fraud, wastefulness, and ethical misconduct.

The findings of both reports, Mr. Bourke said in an interview, suggest that Harvard is negligent in carrying out its responsibilities to the general public. "As the university becomes more closely aligned with industry, the university is transformed," he said. "That's not in and of itself bad, but it is wrong that this transformation is taking place in secret."

Mr. Nader, the consumer advocate, is a 1958 graduate of the Harvard Law School. He said he had chosen to focus on Harvard because, as an alumnus, he felt he had a duty to give something back to Harvard, to "try to help free it of its corporate entanglements."

Daniel Steiner, vice-president and general counsel at Harvard, said it was wrong to assume that professors with corporate ties would betray standards. Harvard requires professors with financial interests in their research to disclose those ties, he said.

"Scholars, Inc." and "The New Classified Research" may be ordered, for $10 and $6 respectively, from Harvard Watch, Mather House 153, Harvard College, Cambridge, Mass. 02138.

—ELIZABETH GREENE

TERRY ROOPNARAINE

Ralph Nader: As a Harvard alumnus he feels he has a duty to "try to help free it of its corporate entanglements."

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In Federal Agencies

American Indian education. The Education Department has proposed rules to carry out changes in the general provisions of the Indian Education Act and Indian education discretionary and formula grant programs, as required by the Indian Education Act of 1988. Comments from the public must be received by January 17 (*Federal Register*, November 16, Pages 46,404-14).

Data collection. The following agencies have submitted lists of their data-collection requests to the Office of Management and Budget for review: Agency for International Development (*Federal Register*, November 9, Page 45,399); Agriculture Department (*Federal Register*, November 9, Page 45,309; November 16, Page 46,100); Defense Department (*Federal Register*, November 10, Page 45,532); Education Department (*Federal Register*, November 9, Pages 45,377-8); Environmental Protection Agency (*Federal Register*, November 10, Pages 45,544-5; November 14, Pages 45,818-9; November 16, Page 46,111); Veterans Administration (*Federal Register*, November 9, Pages 45,417-8; November 10, Page 45,654; November 15, Pages 46,011-2).

Employee benefits. The Internal Revenue Service has proposed rules to guide the administration of pension, profit-sharing, and stock-bonus plans that meet anti-bias requirements. Comments from the public must be received by January 17 (*Federal Register*, November 15, Pages 45,917-47).

Federal-aid recipients. The Office of Management and Budget has proposed changing some administrative requirements for grants and cooperative agreements. The rules would establish the same government-wide regulations for managing grants for both for-profit organizations and non-profit organizations, including colleges and hospitals. Grants to non-profit groups currently are administered under separate guidelines from those for grants to for-profit organizations. Comments from the public must be received by January 3 (*Federal Register*, November 4, Pages 44,710-852).

Foreign-language programs. The Education Department has proposed rules to guide the administration of the Direct Individual Foreign Language and Area Studies Fellowships Program, which supports fellowships to graduate students. Comments from the public must be received by January 3 (*Federal Register*, November 16, Pages 46,416-8).

Geriatric medicine. The Public Health Service has proposed rules to guide the administration of the Grants for Faculty Training Projects in Geriatric Medicine and Dentistry, as required by the Public Health Service Amendments of 1987. Comments from the public must be received by January 3 (*Federal Register*, November 3, Pages 44,496-502).

Health-education loans. The Department of Health and Human Services has proposed rules to carry out changes in the eligibility requirements for people applying for support under the Health Education Assistance Loan program, as required by the Health Professions Training Assistance Act of 1985. Comments from the public must be received by January 6 (*Federal Register*, November 7, Pages 44,913-5).

International exchanges. The United States Information Agency has issued new interim rules to carry out the Agreement for Facilitating the International Circulation of Visual and Auditory Materials of an Education, Scientific, and Cultural Character. The rules are intended to replace interim rules that were declared unconstitutional. Comments from the public must be received by January 9 (*Federal Register*, November 8, Pages 45,079-80).

Magnet schools. The Education Department has proposed various changes in the Magnet Schools Assistance Program to allow special consideration for grant applications from elementary and secondary schools operating collaborative programs with colleges and universities. The rules are required by the Augustus F. Hawkins-Robert T. Stafford Elementary and Secondary School Improvement Amendments of 1988. Comments from the public must be received by December 29 (*Federal Register*, November 14, Pages 45,874-6).

Rehabilitation research. The Education Department has proposed the priorities that will be used to allot money in academic 1989-90 for various rehabilitation research and training programs of the National Institute on Disability and Rehabilitation Research. Comments from the public must be received by December 15 (*Federal Register*, November 15, Pages 46,062-70).

Scientific misconduct. The Public Health Service has extended the period for comments from the public on proposed rules to protect against misconduct in science and research. The new date by which comments must be received is December 19 (*Federal Register*, November 14, Pages 45,781-2).

Special education. The Education Department has issued final changes in rules used to guide the administration of the Training Personnel for the Education of the Handicapped Program, as required by the Education of the Handicapped Act Amendments of 1986 (*Federal Register*, November 10, Pages 45,730-8).

Student-loan defaults. The Education Department has requested comments from the public on the agency's proposed regulations intended to reduce the number and rate of defaults on Stafford Student Loans. Comments must be received by December 2 (*Federal Register*, November 3, Pages 44,514-5).

Teacher education. The Education Department has proposed rules to carry out changes in the Fund for the Improvement and Reform of Schools and Teaching, as required by the Augustus F. Hawkins-Robert T. Stafford Elementary and Secondary School Improvement Amendments of 1988. Comments from the public must be received by December 19 (*Federal Register*, November 3, Pages 44,578-83).

Teacher education. The Education Department has proposed various changes in the Christa McAuliffe Fellowship Program, including the establishment of both a minimum award for fellows and a definition of the responsibilities of those persons (*Federal Register*, November 14, Pages 46,072-3).

Federal Phone Numbers

(All are in Area Code 202.)

To order documents from the Government Printing Office: 783-3238.

To ascertain whether the President has signed a specific bill: 456-2226.

To contact the White House: 456-1414.

To contact the Office of Management and Budget public affairs office: 395-3080.

To contact the Department of Agriculture: public affairs office, 447-7454.

To contact the Department of Defense: public affairs office, 697-9312; personnel locator, 697-1759.

To contact the Department of Education: public information office, 732-4576; personnel locator, 245-3192.

To contact the Department of Health and Human Services: public information office, 245-6343; personnel locator, 245-6296.

To contact the National Science Foundation: public information office, 356-9498; personnel locator, 357-9859.

To contact the National Endowment for the Humanities: public information office, 786-0438; personnel locator, 786-0415.

To contact the National Endowment for the Arts: public information office, 634-6033.

WASHINGTON UPDATE

Savings Bonds for College Costs; Rules for Grant Recipients

President Reagan has signed a bill that gives tax breaks to parents who buy U.S. Savings Bonds to pay for their children's college education. The legislation was designed to correct errors in a 1986 tax-reform bill but included hundreds of provisions unrelated to such mistakes. The bill also will partially reinstate a tax break for employers who provide tuition benefits to their workers, and will make permanent a tax break on aid to graduate students that is not compensation for teaching and research.

Under the new law, interest earned on U.S. Savings Bonds will be exempt from income tax if the bonds are used to pay for college. The full exemption will be available to couples who earn $60,000 a year or less and to single parents with incomes of $40,000 or less. Benefits will taper off above those income levels.

The bond program is to begin in 1990. The provision involving tuition benefits provided by employers extends a tax break that expired last year. It will allow employers to pay up to $5,250 a year tax-free for a worker's undergraduate education.

Until last year, the tuition benefit was available to graduate students, also. Many college officials have complained that leaving graduate students out will discourage people from obtaining advanced degrees in business and engineering.

—ROBIN WILSON

■

Federal agencies have come together to propose a single set of regulations for administering federal grants throughout the government.

But individual agencies have suggested so many exceptions and alternatives to the joint proposal that the total package is as much a hodgepodge as the regulations that the agencies already have in place, college officials say. The proposal—which would govern rules for all grant recipients, not just colleges—was published on November 4 in the *Federal Register*. In particular, the proposed rules would allow agencies to decide whether to follow special procedures to reduce paperwork in managing grants for academic research to colleges and universities.

The simplified procedures were tested in a demonstration project that involved several federal agencies and universities in Florida. The experiment proved so successful that the White House Office of Management and Budget this year encouraged all federal agencies to use some of the simpler methods tested in Florida.

The special rules, for example, would allow researchers to buy equipment and hire people for up to 90 days before they are officially covered by a grant without having to get federal permission first, as many agencies have required in the past.

Higher-education officials support such changes. But some say that because the simplified procedures would be optional rather than required, their implementation could create just the kind of unnecessary paperwork and delays that the proposed rules are supposed to eliminate. Universities would have to keep track of which grants were covered by the special set of rules from the Florida test and which were not.

One federal official, who asked not to be identified, said the process of designing government-wide regulations was still in flux, and the official urged higher-education officials to let federal agencies know if they think the final regulations should include a stronger endorsement of the more liberal rules for academic research.

—COLLEEN CORDES

FACT FILE: The Top 100 Institutions in Total Research-and-Development Spending for Fiscal 1987

	U.S. funds for research & development		Total funds for research & development	
	Amount	Rank	Amount	Rank
Johns Hopkins U *	$476,290,000	1	$510,896,000	1
Massachusetts Inst. of Technology †	206,785,000	2	264,416,000	2
U. of Wisconsin, Madison	149,665,000	4	254,493,000	3
Cornell U †	144,604,000	6	244,840,000	4
Stanford U †	204,386,000	3	240,885,000	5
U. of Michigan	137,558,000	8	224,890,000	6
U. of Minnesota	109,003,000	15	222,381,000	7
Texas A&M U	75,432,000	26	219,853,000	8
U. of California, Los Angeles	130,763,000	10	188,831,000	9
U. of Illinois, Urbana-Champaign	104,420,000	17	188,682,000	10
U. of Washington	145,184,000	5	187,062,000	11
U. of California, San Diego	142,751,000	7	183,047,000	12
U. of California, Berkeley	108,828,000	16	175,273,000	13
U. of California, San Francisco	117,302,000	12	169,436,000	14
Harvard U	119,955,000	11	169,074,000	15
U. of Texas, Austin	88,395,000	20	168,931,000	16
Pennsylvania State U	94,326,000	19	165,841,000	17
U. of Pennsylvania	111,185,000	14	158,334,000	18
Columbia U	133,018,000	9	149,904,000	19
Yale U	116,943,000	13	145,818,000	20
U. of California, Davis	56,622,000	36	143,798,000	21
U. of Arizona	65,024,000	30	138,726,000	22
U. of Southern California	101,749,000	18	134,995,000	23
U. of Maryland, College Park	55,194,000	38	126,239,000	24
U. of Georgia	35,261,000	65	124,442,000	25
Ohio State U	58,555,000	34	123,246,000	26
Georgia Inst. of Technology	63,132,000	31	120,342,000	27
U. of Colorado	83,144,000	21	112,276,000	28
Michigan State U	44,989,000	50	111,810,000	29
Purdue U	56,302,000	37	107,131,000	30
U. of Florida	49,311,000	46	104,245,000	31
Washington U	77,757,000	23	103,419,000	32
North Carolina State U	33,662,000	68	102,647,000	33
Louisiana State U	31,089,000	75	102,070,000	34
U. of Rochester †	80,322,000	22	101,598,000	35
New York U	76,126,000	24	98,924,000	36
Rutgers U	27,178,000	79	94,555,000	37
U. of North Carolina, Chapel Hill	72,529,000	27	93,754,000	38
U. of Chicago †	75,889,000	25	91,879,000	39
Baylor College of Medicine	49,834,000	44	90,179,000	40
Duke U	67,925,000	29	89,556,000	41
Northwestern U	49,286,000	47	88,920,000	42
California Inst. of Technology †	71,086,000	28	86,565,000	43
U. of Pittsburgh	62,060,000	32	84,183,000	44
Carnegie Mellon U	53,817,000	41	83,763,000	45
U. of Connecticut	36,884,000	63	81,575,000	46
Virginia Polytechnic Inst. & State U	32,129,000	70	80,552,000	47
U. of Massachusetts	44,256,000	51	79,814,000	48
Oregon State U	46,774,000	48	79,715,000	49
U. of Iowa	57,159,000	35	79,090,000	50
Iowa State U †	19,682,000	97	78,351,000	51
Yeshiva U	59,768,000	33	73,773,000	52
U. of Alabama, Birmingham	$54,534,000	39	$72,692,000	53
Case Western Reserve U	53,580,000	42	70,850,000	54
State U. of New York, Buffalo	51,212,000	43	70,474,000	55
U. of Utah	54,226,000	40	68,194,000	56
Rockefeller U	37,983,000	60	66,760,000	57
U. of Texas System Cancer Center	22,162,000	89	65,417,000	58
Indiana U	44,211,000	52	65,341,000	59
U. of Miami	38,052,000	59	65,158,000	60
Princeton U	43,505,000	53	65,089,000	61
U. of Illinois, Chicago	34,570,000	66	64,701,000	62
U. of Virginia	41,267,000	55	63,861,000	63
U. of Texas Health Science Center, Dallas	45,382,000	49	62,907,000	64
U. of Missouri, Columbia	20,250,000	95	61,212,000	65
U. of Tennessee, Knoxville	28,752,000	78	60,096,000	66
Emory U	36,698,000	64	58,889,000	67
New Mexico State U	37,904,000	61	58,672,000	68
Boston U	49,406,000	45	58,299,000	69
U. of Hawaii, Manoa	34,472,000	67	57,345,000	70
U. of Nebraska, Lincoln	24,512,000	84	56,066,000	71
U. of Kentucky	26,261,000	80	55,042,000	72
State U. of New York, Stony Brook	39,445,000	56	54,219,000	73
U. of Cincinnati	32,044,000	71	53,804,000	74
Colorado State U	38,961,000	57	52,619,000	75
U. of California, Irvine	38,138,000	58	51,691,000	76
U. of California, Riverside	15,001,000	108	51,158,000	77
U. of Kansas	22,941,000	86	50,603,000	78
Washington State U	21,274,000	94	48,865,000	79
Woods Hole Oceanographic Institute	42,239,000	54	48,061,000	80
Auburn U	13,446,000	117	48,045,000	81
Oklahoma State U	9,575,000	138	47,420,000	82
Tufts U	37,148,000	62	46,497,000	83
Clemson U	9,016,000	139	46,495,000	84
Florida State U	21,416,000	93	46,420,000	85
City U. of New York, Mount Sinai School of Medicine	31,024,000	76	46,137,000	86
U. of Maryland, Baltimore	26,244,000	81	45,523,000	87
U. of Oklahoma	14,453,000	111	45,350,000	88
U. of New Mexico	29,096,000	77	45,333,000	89
Vanderbilt U	31,343,000	74	43,589,000	90
U. of California, Santa Barbara	32,856,000	69	42,704,000	91
Utah State U	22,109,000	90	41,343,000	92
Virginia Commonwealth U	31,612,000	73	41,016,000	93
Kansas State U	13,270,000	118	40,587,000	94
Mississippi State U	12,387,000	125	40,405,000	95
Wayne State U	16,927,000	103	39,335,000	96
Arizona State U	14,009,000	114	38,763,000	97
Tulane U	21,836,000	92	38,393,000	98
Brown U	32,024,000	72	38,110,000	99
Georgetown U	24,477,000	85	35,981,000	100
Total, 100 institutions	**$6,184,538,000**		**$9,980,550,000**	
Total, all institutions	**$7,325,710,000**		**$12,081,531,000**	

Note: Figures cover only research-and-development expenditures in science and engineering, and exclude spending in such disciplines as the arts, education, the humanities, law, and physical education.

Because some institutions have developed new methods to report their research expenditures more accurately, comparisons with earlier years may not be appropriate.

* Includes the Applied Physics Laboratory with $342-million in total and $338-million in federally financed research-and-development expenditures.

† Excludes research expenditures at university-associated federally funded research-and-development centers.

SOURCE: NATIONAL SCIENCE FOUNDATION

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News Summary

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An N.I.H. panel investigating possible scientific misconduct was accused of providing information to a target of its inquiry. Page A4

Anthropologists met to explore the possibilities of ethnographic writing and research. Page A5

A survey of 660 institutions found 75 per cent offered health insurance to retired employees. Page A17

The A.A.U.P. decided that Northwestern U. had acted properly in a 1985 tenure-denial case. Page A17

A powerful ally to Texas educators, Wilhelmina Delco has also taken on some sacred cows. Page A23

Japanese businessmen are trying to buy control of the boards of several American colleges. Page A31

Colleges are hiring recent graduates to help coordinate student-volunteer programs. Page A33

Critics are debating the validity of standardized tests for aspiring teachers. Page A33

Delegates to the N.C.A.A.'s convention in January will consider 147 proposed rules changes. Page A37

South Africa is trying again to force universities to take a tough stance against activism. Page A41

South African academics have begun to consult outside the country with Soviet educators. Page A41

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U.S. Studies Policies at Harvard, UCLA on Admitting Asians

Public concern over quotas cited; universities vehemently deny bias

By **ROBIN WILSON**

WASHINGTON

The Education Department is examining admissions policies at Harvard University and the University of California at Los Angeles because of concern that the institutions may have illegally limited the enrollment of Asian American students.

Mahlon G. Anderson, a spokesman for Education Secretary Lauro F. Cavazos, said no specific complaints of discrimination had been filed against the institutions. But he said concern had been expressed by lawmakers, parents, and students about admissions policies at the two universities.

"We're not going into this saying Harvard is discriminating and U.C.L.A. is discriminating," said Mr. Anderson. "But there have been public allegations made that there may be a quota system limiting Asians, and we have got to go out there and check on the health of the system."

'We Absolutely Do Not Discriminate'

Officials at both Harvard and U.C.L.A. vehemently denied that their institutions had used quotas to restrict Asian students.

"We absolutely do not discriminate and do not have quotas set against Asian Americans or any other group," said Susie Chao, an admissions officer at Harvard University. "We'd like to bring in the most talented students, and to limit ourselves in any way—besides being illegal—would be detrimental in the long run."

Ms. Chao said the proportion of students at Harvard who are Asian Americans has nearly tripled in the last 10 years. In academic 1978-79, she said, 5 per cent of the freshmen at Harvard were Asians. This year, 14 per cent are.

There have also been increases in the

Continued on Page A27

Slight Decline in Enrollment Projected in Next 10 Years

	1988	1997	Change
	(Add 000)		
Total	12,560	12,173	−3.1%
Public	9,760	9,469	−3.0
Private	2,800	2,704	−3.4
4-year	7,881	7,570	−3.9
2-year	4,679	4,603	−1.6
Men	5,880	5,688	−3.3
Women	6,680	6,485	−2.9
Full-time	7,157	6,750	−5.7
Part-time	5,403	5,423	+0.4

SOURCE: U.S. DEPARTMENT OF EDUCATION

See story on Page A33.

'WAR OF WORDS'

How, After a 4-Year Unionization Fight, Faculty Finally Voted at Southern Illinois

By **DEBRA E. BLUM**

CARBONDALE, ILL.

After four years of expensive legal battles, heated campus debates, strategy sessions, and lobbying campaigns by telephone and newsletter, faculty members at Southern Illinois University were finally ready this month to vote on whether they wanted collective bargaining.

To union organizers and to some administrators and faculty members, there would be almost as much at stake in this election as there had been when the nation went to the polls to vote for a new President just the week before.

A Yes vote by faculty members at Carbondale would make them Southern Illinois's first faculty collective-bargaining unit ever, and the nation's first unit of full-time faculty members to organize since 1986, according to Joel M. Douglas, director of the National Center for the Study of Collective Bargaining in Higher Education and the Professions.

In recent years, there has been a shift away from the organization of full-time faculty members into collective-bargaining units. Instead, new units have been made up of part-time and non-tenure-track faculty members.

A No vote, on the other hand, would end a campaign for unionization that had stretched out over almost four years, largely because of disagreements between the unions and the administration over who should be included in potential collective-bargaining units.

Feverish Activity

In the days leading up to the election, that tension was reflected in the unions' feverish activity and the administration's public disapproval of unionization.

"The long road here was busy and hectic," said Donald J. Keck, a union

Continued on Page A18

Agricultural Researchers Seek $500-Million a Year in Campaign to Improve Their Scientific Stature

By **DAVID L. WHEELER**

Agricultural researchers are mounting a major new political initiative to try to improve their status on the American scientific scene.

A new $500-million-a-year grants program aimed at trying to put agricultural research back on the scientific frontier is being proposed by an independent committee for a "National Initiative for Agricultural Research," with support from the National Association of State Universities and Land-Grant Colleges and the National Research Council's Board on Agriculture. Agricultural scientists say government support of their research has lagged behind many other fields, such as biomedical research and physics, for decades.

The new agricultural grants would be awarded competitively. Their advocates hope they would attract the best scientists to agricultural problems, regardless of whether the scientists work at an agricultural school or consider themselves agricultural scientists.

'We've Had Broad Interest'

To try to gather as many supporters as possible, advocates of the new program are courting farm groups, scientific societies, biotechnology companies, traditional "agribusiness" companies, and commodity organizations interested in only one product, such as corn.

"We've had broad interest so far," says Theodore L. Hullar, chancellor of the University of California at Davis, who is head of the committee supporting the new program and chairman of the National Board on Agriculture. "There's a recognition that the funding for research related to agriculture is stagnating."

The initiative's advocates want to get an early start on influencing next year's federal budget. They have begun to lobby some members of Congress and hope to influence members of the Reagan-to-Bush transition team.

Those lobbying for the new grants also hope that a comprehensive report on financing for agricultural research, which

Continued on Page A26

BUSH RETAINS EDUCATION CHIEF

George Bush announces that Lauro Cavazos (right) will stay on as Education Secretary: Page A23.

MARGINALIA

Editorial in the *Idahonian / Daily News*:

"Research has become the darling of the academic profession, particularly at WSU [Washington State University] which has made a concerted effort in this decade to wave a magic wand and transform itself into a major research institution.

"Too often in such Cinderella schemes, the other two legs of the university stool—teaching and public service—never make it to the ball or get to meet Prince Charming."

That's because there's no room in the pumpkin for furniture.

■

Advertisement in *The Messenger*, a student bimonthly at Roger Williams College:

"The RWC Cheerleaders and the Athletic Department announce a position opening.

"Description: The HAWK

"Qualifications: The applicant must have the following:

"—school spirit

"—creativity

"—ability to generate excitement and enthusiasm!

"No experience necessary, we supply the beak, wings and feathers."

Just so we don't have to grow our own.

■

Crime note in the Rider College *News*:

"On Sunday, Nov. 6 at 8 a.m., a Ziegler resident reported that a burglar removed her purse through a cut screen window.

"The student's purse was recovered near the Daly Dining Hall later that night. The money in the purse was removed.

"The Lawrence Township Police Department (LTPD) was called and dusted for fingerprints."

It's standard procedure in cases like that.

■

Introduction to the 1989 dues schedule of the American Mathematical Society:

"For any category of membership where no dues prices are given, the higher one is to be paid by persons whose annual professional income is $30,000 or more."

It's beyond us. But we were *never* much good at math.

■

From the *Phoenix*, the undergraduate paper at Loyola University of Chicago:

"The combination of the dewy decimal and the library of congress system of filing is not only confusing but frustrating when a student is trying to meet the deadline for a paper."

Besides, it's a nuisance to carry a towel. —C.G.

In Brief

Cornell U. Returns Funds Amid Protests Over Study

Protests over a Cornell University medical-school study involving barbiturate addiction in cats have forced administrators there to turn down a three-year, $520,000 federal grant to support the experiments.

While animal-rights groups applauded the decision, it enraged the director of the National Institute on Drug Abuse, Charles F. Schuster, who wrote to Cornell officials last month to emphasize the importance of continuing the study to advance the understanding of drug addiction.

Cornell officials last week said they would use university funds to continue support for Michiko Okamoto, a professor of pharmacology, who has decided to use rats, instead of cats, in her study.

They said the university had turned down the grant from the institute to protect Cornell's credibility. A letter Cornell sent to legislators last year suggested "ambiguously" that Ms. Okamoto would phase out her cat experiments, a medical-school spokesman said. However, much of her support from the institute was intended for experiments on cats.

What They're Reading on College Campuses

		Previous Survey
1.	The Essential Calvin and Hobbes, by Bill Watterson	1
2.	Tales Too Ticklish to Tell, by Berke Breathed	3
3.	Beloved, by Toni Morrison	—
4.	The Power of Myth, by Joseph Campbell with Bill Moyers	4
5.	A Brief History of Time, by Stephen W. Hawking	8
6.	The Far Side Gallery 3, by Gary Larson	—
7.	Night of the Crash-Test Dummies, by Gary Larson	2
8.	Kaleidoscope, by Danielle Steel	—
9.	Love, Medicine & Miracles, by Bernie S. Siegel	—
10.	The Cardinal of the Kremlin, by Tom Clancy	—

The Chronicle's list of best-selling books was compiled from information supplied by stores serving the following campuses: American U., Brown U., Bucknell U., Carleton College, Carnegie Mellon U., Case Western Reserve U., Central Michigan U., Denison U., Indiana U., Lawrence U., Lehigh U., Mankato State U., Pennsylvania State U., Portland State U., Princeton U., Stanford U., Tarrant County Junior College, Tulane U., U. of Alaska at Anchorage, U. of California at San Diego, U. of Hawaii, U. of Iowa, U. of Maryland–Baltimore County, U. of Missouri at Columbia, U. of Nebraska at Lincoln, U. of New Orleans, U. of Notre Dame, U. of Pittsburgh, U. of Puget Sound, U. of Texas at Austin, U. of Virginia, U. of Washington, U. of Wisconsin at Madison, U. of Wisconsin at Milwaukee, Vanderbilt U., and Wichita State U.

Reports covered sales of hardcover and paperback trade books in October.

2 N.Y. University Systems Freeze Hiring and Buying

The chancellors of New York's two public-university systems have imposed freezes on hiring and postponed all non-essential purchases to help the state reduce a budget deficit of nearly $950-million.

The actions by D. Bruce Johnstone, chancellor of the State University of New York, and Joseph S. Murphy, chancellor of the City University of New York, were requested by state budget officials.

Gov. Mario M. Cuomo, a Democrat, previously ordered all state agencies to impose such freezes. The two university systems are run by independent boards and were not required to comply.

The SUNY freeze is expected to last until Mr. Johnstone's budget officials determine what savings they will ask each campus to make. The CUNY freeze was announced with no cutoff date, but is not expected to affect the hiring of adjunct faculty members or graduate students next semester.

Fire Destroys Records at American River College

Thousands of student financial-aid and testing records were destroyed in a fire that caused an estimated $3.5-million in damage to the placement center at American River College.

The 20,000-student institution is one of the largest community colleges in California.

The main losses included placement-test results, financial-aid and scholarship records, computer data and computers, and audio-visual equipment, officials said. No academic records were lost.

The fire, which broke out during the night, was caused by an electrical malfunction.

Regents of Texas A&M U. Approve Merger Plans

The Board of Regents of the Texas A&M University system voted last week to merge with three predominantly Hispanic South Texas universities in a move aimed at strengthening those institutions.

The merger, which must be approved by the state Legislature, is one of several efforts undertaken in the past two years to upgrade education in South Texas.

The University of Texas and Pan American University are also negotiating a merger plan to send to the Legislature. The lawmakers are expected to vote on both mergers shortly after they convene in January.

The three institutions involved in the A&M merger plan—Texas A&I University, Corpus Christi State University, and Laredo State University—make up the University System of South Texas. The system's governing board approved the merger earlier.

Lawmakers from South Texas said they hoped the two mergers might help settle a lawsuit filed last year by the Mexican American Legal Defense and Educational Fund. The suit charged that the state had discriminated against Hispanic students by providing fewer programs and giving less money to public colleges with large Hispanic enrollments.

Fired Southern U. Head Files $5-Million Lawsuit

The recently fired president of Louisiana's Southern University system has sued the institution for $5-million, charging that the dismissal had damaged his reputation.

Joffre T. Whisenton, who was fired in late October, had been facing accusations of mismanagement from university board members, faculty members, and the state chapter of the National Association for the Advancement of Colored People. He offered to resign and sought a paid sabbatical, but the university board rejected his request and voted to remove him from the post.

Mr. Whisenton could not be reached for comment. One of his lawyers, Sheldon D. Beychok, said he had been fired without due process and "turned out into the streets." Mr. Whisenton is seeking salary and benefits that he be-

Reagans Break Ground for Presidential Library

AP/WIDE WORLD

SIMI VALLEY, CAL.

President Reagan and his wife Nancy used chrome-plated shovels last week to break ground for the construction of the Ronald Reagan Presidential Library near Los Angeles. Plans call for the facility to open on February 6, 1991, Mr. Reagan's 80th birthday.

About 375 guests attended the groundbreaking at the rural 100-acre site, located atop a scenic mesa in Simi Valley in Eastern Ventura County.

Gifts and 55 Million Documents

The library will house at least 55 million documents from Mr. Reagan's eight-year term of office, as well as gifts to him from foreign governments.

It is being built by the Ronald Reagan Presidential Foundation at a cost of $43-million. About $32-million had been raised from contributions by the end of 1987. The land was donated by a developer.

The Ventura County planning commission gave final approval to plans for the library in September after traffic, air-pollution, and ecological objections had been resolved.

Plans by the private developers who donated the land for a hotel, conference center, and private housing near the library site were dropped after county officials expressed concern about the possible overuse of the unincorporated area.

—JACK McCURDY

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Colleges and Blacks in Texas Find an Ally in Outspoken Legislator

Continued from Page A23

not only on the athletic teams, but the debate teams, cheerleading squads, and student government."

Adds Ms. Delco: "Other states come into Texas and raid talented black students. We've given birth to them, we've sent them to elementary and high school, and then we sit and watch while other people rip our brightest and our best."

One of her biggest accomplishments on behalf of black students, Ms. Delco says, was securing legislative approval for an amendment to the Texas Constitution that allows predominantly black Prairie View A&M University to share special funds that Texas A&M and the University of Texas had enjoyed for themselves.

Prairie View is under the governance of the A&M system, but had not had its share of the money set aside in a permanent state fund for those university systems, she says. The amendment set up an annual $100-million fund for colleges outside the University of Texas and A&M systems to use for construction and renovation of buildings, as well as for books, libraries, and *other essential* items.

Up Against Sacred Cows

Ms. Delco's interest in helping black Texans frequently brings her up against sacred cows. For example, she has made no secret of her disapproval of the tenure system, which she believes makes it difficult for women and members of minority groups to find jobs.

In an interview published in a statewide faculty newsletter, she said of the tenure system: "I think tenure has evolved into a kind of a security blanket which happens to give security to some people who happen to be part of the good-old-boys' network and denies security to young people who might really have a lot to offer the institution. It also often conflicts with affirmative action."

Ms. Delco says she believes the tenure system ought to be periodically reviewed to see whether it is still meeting the needs of higher education. Although her committee has examined the concept of tenure, it has not acted on the issue, and she says she does not expect it to do so in the future.

Ms. Delco is now closely monitoring, and occasionally questioning, a push by Hispanic politicians and educators to put more money into colleges and universities in South Texas, where many of the state's Hispanic citizens live. "Concentrating on South Texas is a disservice to blacks, as well as Hispanics living in other parts of the state," she says.

She has rankled Hispanic legislators with comments such as the following, which appeared in a newspaper interview: "They're not dedicated to expanding the pie as much as they are interested in taking a bigger part of the pie that has been allocated to minorities."

Clash Over Law Schools

Last year, Ms. Delco's interests again clashed with those of Hispanics over a proposal to close the law school at Texas Southern University, a historically black institution in Houston, and use the money for a new law school in South Texas. Ms. Delco made it plain she thought it was a bad idea, and the proposal was eventually dropped.

Politicians and academics here react to Ms. Delco's frank talk in different ways. Carlos Truan, a prominent Hispanic state senator, says Ms. Delco is "very knowledgeable and very dedicated." But he adds: "The general consensus among Hispanic legislators is that she has concentrated on the needs of black colleges, but has not demonstrated the same support for Hispanics, particularly in South Texas."

Among the black leaders in higher education, however, support for Ms. Delco is steadfast.

"I think she has been an outstanding educational leader," says Percy A. Pierre, president of Prairie View A&M University. "She is unusually effective in articulating the needs of the black constituency while at the same time being sensitive to the limitations of state funding."

Gerald W. Hill, vice-chancellor for governmental relations for the U.T. system, also gives Ms. Delco high marks. He did so even though Ms. Delco, who represents the district where the university's main campus *is located, is not afraid to criticize the* institution, particularly about minority recruitment.

"She is one of the most outspoken advocates of higher education in Texas," Mr. Hill says. "From time to time she will offer a criticism, but never without a remedy."

A Hectic Schedule

Getting Ms. Delco to sit down long enough for an interview can be a challenge. To accommodate her hectic schedule, she has interviews set up weeks in advance, and then there is little time for small talk.

Her schedule over the next few weeks will take her to Jackson, Miss., for a committee meeting of the Southern Regional Education Board; to Atlanta, for a meeting of the Southern Association of Colleges and Schools; and to Washington, to meet with the executive committee of the National Conference of State Legislators.

A sought-after speaker, Ms. Delco has held leadership positions in many national associations. She was the chairwoman of the Educational Testing Service's Board of Trustees and of the National Conference of State Legislatures' Education and Job Training Committee.

Elected to School Board in 1968

Ms. Delco grew up in Chicago and attended Fisk University, a historically black institution. There she met her husband, Exalton A. Delco, Jr., and moved with him after graduation to his home state of Texas.

Her interest in education was ignited when she got involved in the P.T.A. and Girl Scouts. She began her career in education policy in 1968, when she was elected to the Austin school board, where she served for six years.

When she discovered she was unable to make the major changes she wanted, she decided to run for the Legislature, and was elected on her first try. After serving on the House Public Education Committee, she was named to lead the Higher Education Committee.

While she was new to the committee, Ms. Delco was no stranger to higher education. Her husband taught biology at Huston-Tillotson College, a predominantly black institution, for 25 years before becoming an administrator there. He is now vice-president for academic affairs at Austin Community College.

Seeking Money for Recruiting

One of Ms. Delco's priorities in the next legislative session, which starts in January, will be obtaining more state funds for colleges and universities to identify and recruit strong minority students. The University of Texas and Texas A&M recently opened offices in cities around the state to recruit minority students, and Ms. Delco wants to get money to expand those efforts to other universities and other cities.

Something has to be done to restore black youngsters' faith in education, she believes. That will require "reselling the value of education" in terms that do not focus on money.

"Education was sold to blacks as the sure road out of the ghetto," she says. "Well, it's not true any more." Many black college graduates end up with dead-end jobs or no jobs at all, she says, while some who sell drugs end up getting rich.

Adds Ms. Delco: "We have to change the dialogue and realize we're losing kids. We're throwing away large segments of the population, and we can't afford to do that any more."

Court Seeks New La. Desegregation Plan

NEW ORLEANS

A federal court last week decided to appoint an outside expert to develop a new plan to end segregation in Louisiana's public colleges and universities.

The three-judge panel did not rule on the merits of a desegregation plan offered by Gov. Buddy Roemer, a Democrat, but it again endorsed the creation of a single board to govern all public colleges and universities, a change the Governor had sought.

The expert, called a special master, will work with the Governor's lawyers, officials from the U.S. Department of Justice, and representatives of the Board of Regents and the governing boards of the three separate public university systems.

The new plan will then be the subject of a trial, beginning February 15, at which it will be examined to determine if it will work and if it is constitutionally acceptable.

Earlier this year, the federal court found that Louisiana was operating a racially segregated higher-education system in violation of the Constitution and U.S. Civil Rights laws that bar discrimination in programs that receive federal funds. The trial is to determine an appropriate remedy.

The outcome of the Louisiana case *could be significant to o*ther desegregation cases in the South. Court rulings to date have criticized earlier approaches of improving predominantly black institutions by merely allocating them more money. In Louisiana, that simply fostered dual, racially identifiable systems, which are illegal, the court held.

Governor Roemer's plan suggested incentives and regulations to encourage white students to attend predominantly black institutions, and black students to enroll in predominantly white colleges and universities (*The Chronicle*, November 23). But most of the details of how the plan would work were to be determined by the new board.

The Justice Department contends that many of the techniques proposed by Governor Roemer could be put to use without waiting for the new governing board to be established, said Nathaniel Douglas, chief of the Educational Opportunities Section of the department's Civil Rights Division.

"We think the special master will help us break the log jam," said John N. Kennedy, special counsel to the Governor, referring to the political infighting among various interests that Mr. Roemer and others say have stymied progress.

—GOLDIE BLUMENSTYK

FACT FILE: Spending For Research and Development by Doctorate-Granting Universities, Fiscal 1987

	Federal government	State and local government	Industry	The institution itself	Other	Total
Alabama	$85,382,000	$16,449,000	$10,916,000	$29,919,000	$10,259,000	$152,925,000
Alaska	14,454,000	2,919,000	1,217,000	11,056,000	546,000	30,192,000
Arizona	80,955,000	8,965,000	17,456,000	61,644,000	12,243,000	181,263,000
Arkansas	12,257,000	9,352,000	2,829,000	8,028,000	3,063,000	35,529,000
California	1,062,819,000	36,739,000	72,260,000	289,604,000	90,379,000	1,551,801,000
Colorado	136,003,000	8,771,000	8,728,000	17,682,000	14,515,000	185,699,000
Connecticut	155,717,000	2,495,000	9,298,000	39,761,000	23,519,000	230,790,000
Delaware	13,662,000	1,995,000	3,659,000	10,117,000	2,248,000	31,681,000
D.C.	62,968,000	484,000	4,192,000	11,642,000	6,184,000	85,470,000
Florida	128,868,000	13,341,000	20,730,000	72,419,000	16,945,000	252,303,000
Georgia	149,556,000	39,603,000	33,568,000	91,946,000	9,487,000	324,160,000
Hawaii	34,472,000	19,317,000	261,000	2,591,000	704,000	57,345,000
Idaho	8,988,000	8,314,000	2,899,000	4,436,000	142,000	24,779,000
Illinois	293,929,000	30,610,000	23,791,000	117,826,000	32,065,000	498,221,000
Indiana	111,413,000	15,772,000	17,203,000	37,627,000	6,071,000	188,086,000
Iowa	76,862,000	16,651,000	6,212,000	49,668,000	8,089,000	157,482,000
Kansas	37,386,000	20,031,000	5,433,000	27,607,000	3,474,000	93,931,000
Kentucky	30,778,000	10,841,000	6,715,000	26,545,000	3,129,000	78,008,000
Louisiana	54,367,000	31,850,000	7,154,000	42,639,000	12,553,000	148,563,000
Maine	7,787,000	315,000	2,051,000	5,740,000	1,059,000	16,952,000
Maryland	575,176,000	50,198,000	25,577,000	52,311,000	6,723,000	709,985,000
Massachusetts	536,435,000	18,398,000	59,993,000	36,792,000	67,454,000	719,072,000
Michigan	208,017,000	30,343,000	25,072,000	103,788,000	29,566,000	396,786,000
Minnesota	109,003,000	37,287,000	11,056,000	39,371,000	25,664,000	222,381,000
Mississippi	22,492,000	16,667,000	4,170,000	8,897,000	5,396,000	57,622,000
Missouri	113,458,000	11,779,000	19,122,000	50,268,000	12,393,000	207,020,000
Montana	9,910,000	8,626,000	3,126,000	7,853,000	0	29,515,000
Nebraska	32,934,000	16,074,000	4,185,000	14,976,000	3,561,000	71,730,000
Nevada	13,608,000	1,912,000	4,065,000	7,824,000	661,000	28,070,000
New Hampshire	34,633,000	2,045,000	2,081,000	4,976,000	4,055,000	47,790,000
New Jersey	96,048,000	37,489,000	11,910,000	55,142,000	14,991,000	215,580,000
New Mexico	75,923,000	17,908,000	20,123,000	9,756,000	4,004,000	127,714,000
New York	769,178,000	52,771,000	62,499,000	137,090,000	108,604,000	1,130,142,000
North Carolina	195,177,000	54,897,000	23,825,000	25,757,000	14,163,000	313,819,000
North Dakota	17,492,000	15,376,000	2,134,000	3,701,000	281,000	38,984,000
Ohio	193,061,000	34,903,000	22,360,000	46,924,000	31,524,000	328,772,000
Oklahoma	25,908,000	3,380,000	6,738,000	57,620,000	5,470,000	99,116,000
Oregon	81,932,000	18,645,000	4,059,000	12,936,000	14,683,000	132,255,000
Pennsylvania	387,038,000	24,229,000	61,299,000	76,500,000	55,766,000	604,832,000
Rhode Island	51,313,000	2,136,000	5,380,000	5,293,000	1,394,000	65,516,000
South Carolina	34,350,000	14,061,000	6,184,000	37,110,000	4,106,000	95,811,000
South Dakota	5,188,000	4,700,000	482,000	875,000	268,000	11,513,000
Tennessee	80,820,000	25,789,000	13,792,000	19,232,000	4,511,000	144,144,000
Texas	403,298,000	89,468,000	46,295,000	172,935,000	98,997,000	810,993,000
Utah	81,355,000	13,412,000	5,734,000	16,178,000	4,199,000	120,878,000
Vermont	22,289,000	1,805,000	2,877,000	3,330,000	1,246,000	31,547,000
Virginia	116,654,000	36,400,000	18,103,000	27,110,000	8,354,000	206,621,000
Washington	166,458,000	5,561,000	21,183,000	33,623,000	9,102,000	235,927,000
West Virginia	13,011,000	871,000	884,000	10,736,000	1,202,000	26,704,000
Wisconsin	171,704,000	49,818,000	11,992,000	45,196,000	24,478,000	303,188,000
Wyoming	8,701,000	1,129,000	1,216,000	6,176,000	94,000	17,316,000
Territories	19,030,000	10,558,000	0	20,774,000	4,112,000	54,474,000
Total	$7,230,217,000	$1,003,449,000	$764,086,000	$2,109,547,000	$823,696,000	$11,930,997,000

Note: Figures cover only research-and-development expenditures in science and engineering, and exclude spending in such disciplines as the arts, education, the humanities, law, and physical education.

SOURCE: NATIONAL SCIENCE FOUNDATION

Note Book

Does research fraud have its origins in student cheating? Robert G. Petersdorf, president of the Association of American Medical Colleges, explored that question in a speech at the association's annual meeting this month. Among premedical students, Dr. Petersdorf said, cheating on examinations, deliberate failures to help classmates, and forged letters of recommendation are "all too common."

The association's Section for Student Services investigated 952 incidents of such behavior between 1978 and 1987, Dr. Petersdorf said, including a case in which a student tried to use a Boy Scouts of America insignia as a substitute for the university seal on a transcript.

Dishonest behavior continues, Dr. Petersdorf said, in medical school and in graduate medical education. Most shocking to him, he said, were reports from hospital administrators that in June—the time when medical residents move on to other assignments—medical supplies, such as syringes, bandages, blood pressure cuffs, and small surgical instruments, have "a remarkable propensity for 'walking'."

One administrator even reported the disappearance of an operating table.

As one remedy, Dr. Petersdorf proposed that admissions committees start looking into the "moral background" of students and not just at their test scores or undergraduate research projects.

■

Harvard Law School students are doing their best to pass along some of their luxuries to the homeless.

As a recruiting device, law firms typically put their interviewees up in posh hotel rooms. Instead of staying at the usual first-class digs, however, more than 600 students are taking less expensive rooms and asking the firms to donate the difference in cost to homeless shelters in their areas.

So far, about 115 firms, all for-profit, have agreed to cooperate. A local travel service is donating some of its commission on airline tickets—booked by the law students—to Boston's homeless.

The fund-raising effort is being organized by Code Critical, a year-old group of Harvard law students dedicated to battling homelessness.

"The interview process has become more and more luxurious, and we thought that the homeless need the money a lot more than we do," says Code Critical's James Lovett, a third-year student.

He says the firms enjoy the chance to show their concern for the needy. Also, he says, they're interested in making the interviewees as comfortable as possible. If that means booking a less expensive room for charity's sake, the firms are happy to oblige. "It doesn't cost them any more money," Mr. Lovett says.

The students expect to raise between $30,000 and $50,000.

Students

Colleges Hire Young Graduates, Dubbed 'Green Deans,' to Help Run Their Student-Volunteer Programs

Pay is low; most of the administrators say they do their jobs out of love

By MICHELE N-K COLLISON

NORTHFIELD, MINN.

Boxes of clothes are stacked on the floor of Carla J. Dewey's office at Carleton College. Along with an assortment of jeans, overcoats, and skirts, an occasional teddy bear pokes its head out of a carton.

"College students usually come to school with everything they've owned since the seventh grade," says the 22-year-old Ms. Dewey, who graduated from Carleton last spring. "It usually ends up here, and we put it to good use." After student volunteers sort the clothes, they take them to a local social-service agency for distribution to the poor.

'Someone to Be a Catalyst'

Ms. Dewey's office serves as the headquarters of Acting in the Community Together, Carleton's student-volunteer program. Ms. Dewey, who is frequently mistaken for a student volunteer herself, is ACT's coordinator. She keeps track of volunteers, devises strategies to attract new recruits, and meets regularly with her program directors, the heads of social-service agencies, and college administrators.

Ms. Dewey is one of some 40 recent college graduates, popularly known as "green deans," who have been hired by institutions to help coordinate student-volunteer programs.

As such campus activities grow, colleges are recognizing that the programs need to be better organized, says Wayne W. Meisel, executive director of the Campus Outreach Opportunity League, which is based at the University of Minnesota. The league promotes community service by students. Mr. Meisel says the programs are "an effective way to get students involved."

Mr. Meisel says his group borrowed the term "green deans" from colleges that use it to refer to recent graduates who work as assistant deans in admissions offices.

"The campuses need someone to be a force, someone to be a catalyst," says Mr. Meisel, who was himself one of the first

Continued on Page A36

PHOTOGRAPH FOR THE CHRONICLE BY STEVE WOIT, PICTURE GROUP

Carla J. Dewey, with Carleton students: "I think we're helping to dispel the notion that being a volunteer means you're a Goody Two-shoes."

Critics Question Validity of Standardized Tests for Would-Be Teachers

By CHERYL M. FIELDS

State after state adopted requirements in the 1980's for testing would-be teachers, sometimes with little discussion about what examinations can measure or exactly what state leaders wanted them to measure, say critics of the testing requirements.

"State legislatures put these test requirements into effect very quickly, and there has not been a lot of time devoted to test-construction and validation," says Linda Darling-Hammond, director of the Rand Corporation's Education and Human Resources Program. "The people who mandate the tests ought to be devoting more money to studies of validity."

Before 1980, only 10 states required some form of standardized testing of would-be teachers. Now at least 46 states have or are planning certification tests, and 27 require students to pass tests or to earn certain scores on standardized entrance exams before they can major in education.

Some critics assert that there is little evidence that earning a high score on the tests means the test-taker will be a better teacher than someone with a lower score. Some also say there is no general agreement on the levels of professional skills or academic knowledge needed by teachers to be effective in various classroom settings—a consensus that they say is needed if fair tests are to be designed.

Concern About Minority Students

Ms. Hammond, who was the co-author of a Rand report released in April on the evolution of state policies toward teachers, says that at least six states delayed their original deadlines for putting testing requirements into effect or developed different or additional techniques for assessment, because of concerns about the high failure rates on the tests among members of minority groups in other states (*The Chronicle*, November 2).

Another concern, she says, is "the perception of many teachers and teacher educators—and the findings of most studies—that professional-knowledge tests for teachers fail to tap the knowledge and skills important to teaching."

Says Catherine Havrilesky, executive director of teacher programs for the Educational Testing Service: "It is indeed difficult to gain consensus on the importance

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Education Department Foresees Slight Fluctuations in Number of College Students Over Next Decade

WASHINGTON

The number of college students is expected to fluctuate only slightly over the next decade, according to new estimates prepared by the U.S. Department of Education.

In a report on projections of education statistics through 1997-98, the department also said the number of college professors was expected to decline. In addition, with the exception of master's degrees and doctorates, fewer academic degrees are expected to be awarded.

College and university enrollments are expected to rise from an estimated 12.56 million this fall to a record 12.58 million in 1990, decline gradually to 12.14 million by 1996, then edge up to 12.17 million in 1997.

Over all, according to the projections, enrollment will drop 3.1 per cent from 1988 to 1997.

In spite of a continued decline in the traditional college-age population, enrollment is expected to grow in the next few years because of rising college-participation rates of 18- to 21-year-olds and increased numbers of older and part-time students, the department said in its report.

After 1990, however, enrollment will fall, because the number of part-time students is expected to be stable, and the in-

Continued on Following Page

Critics Debate Validity of Standardized Tests for Would-Be Teachers

Continued from Preceding Page

of different areas of professional knowledge, but we rely on members of the profession to tell us what the objectives for the test should be, drawing from their values."

Ms. Havrilesky disagrees with some critics' contentions that testing requirements have been put into effect too quickly. "When tests have been mandated, in the states we've worked with, there have been months of discussion among all of the people who have a stake in teacher education," she says. "In some places there are literally hundreds of people involved in that process," she adds, referring to the panels of educators typically convened to consider the appropriateness of test questions and to help state officials establish passing and failing scores.

Besides concerns about lack of agreement on what skills and knowledge teachers need, critics say the tests now in use sometimes do a poor job of testing the areas they do cover. In 1986, Ms. Darling-Hammond examined a sample version of the widely used professional-knowledge test that is part of the National Teacher Examinations, published by the Educational Testing Service.

New Test Planned

She concluded that about 40 per cent of the more than 100 questions had no correct answer, either because several of the possible answers could be correct or because insufficient information was given in the question.

RAND CORPORATION

Linda Darling-Hammond: "There has not been a lot of time devoted to test-construction and validation."

EDUCATIONAL TESTING SERVICE

Catherine Havrilesky of E.T.S.: "One of the challenges for the future is to find ways of more directly measuring performance."

STANFORD U.

Edward Haertel: "If scores cannot be shown to predict classroom performance, then rational standard-setting is impossible."

The E.T.S. recently released details of a previously announced plan to develop a successor to the N.T.E., parts of which now are used for admissions to teacher training or for teacher certification in 30 states. Different portions of the new examination, which the company says will incorporate the latest developments in educational and psychological research, will be given when students are sophomores, when they have completed teacher training, and when they have completed periods of supervised experience in the classroom.

The N.T.E. is a paper-and-pencil, multiple-choice test. The E.T.S. says its successor, which is scheduled to be introduced in 1992, will add other methods of assessment, including computer simulations, interactive video, and classroom observation. After a transitional period during which both the N.T.E. and its successor will be offered, the new examination will replace the N.T.E.

Edward Haertel, associate professor of education at Stanford University and an expert in educational measurement and evaluation, says the E.T.S. is responding to some of the criticisms of its tests. "I'm encouraged by what they are doing," he says. "Until we actually see what they are proposing to use, however, we won't know how many of the criticisms will have been met."

He adds: "Many thousands of decisions will have been made based on the current N.T.E. by the time the new tests are introduced."

About 200,000 prospective teachers take the National Teacher Examinations each year, according to the E.T.S.

Tests of General Knowledge

Besides professional-knowledge tests, examinations of general academic knowledge and communications skills are required by many states for entry to teacher-training programs and for certification of teachers. State officials defend these "basic skills" tests of reading, writing, and mathematics as vital to protecting elementary- and secondary-school students from bad teachers and to restoring public confidence in the schools.

They contend that the cutoff scores are not unduly high and that anyone who cannot pass such tests is not really literate and should not be in front of a classroom. Taxpayers will not support the higher salaries needed to attract and retain good teachers without evidence of basic competence, say officials of state education departments.

But the tests also have their critics.

Says Barbara Hatton, former dean of education at Tuskegee University and now a program officer at the Ford Foundation: "I agree that a teacher not competent in basic skills ought not to be in a classroom. Yet state officials often do not engage in discussion of what tests do and what they are supposed to do."

Some students who are not illiterate fail the academic-skills tests, she says, "and yet I could have students who had passed an English proficiency exam come into my office and use horrible English."

'A Narrow, Technical Approach'

"They could find their way through the trickiness of multiple-choice questions, and then not apply the rules in spoken language," she continues. "I can guarantee you that I can get you past the test and you need not be literate. We're badly in need of better assessment tools."

She adds: "At Tuskegee, we did raise our passing rates on the tests. But concentrating resources and attention on test scores is a narrow and technical approach. It is a trap, because we know that the tests do not have the predictive validity they should have to deny someone access to a profession totally."

Carol Anne Dwyer, who is overseeing development of the successor to the National Teacher Examinations at the E.T.S., says the new version may use a computer-based test of basic academic skills, although some of the test still might be in a multiple-choice format. Later in the prospective teacher's career, other types of assessment will be used.

Using different testing methods at various stages of a prospective teacher's educational career "will give people a better chance to show what they can do," she adds. Ms. Dwyer acknowledges, though, that a student who couldn't pass the first stage of testing at the end of the sophomore year would be barred from continuing in teacher training.

"It is foolish to hope that all the equity problems we now see in education will disappear," she

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Slight Fluctuations Seen in Number of College Students Over Next Decade

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creases in the numbers of older students will not be large enough to offset declines in the enrollment of younger students, according to the report.

The department generally expects stability in the composition of enrollment in 1988 and 1997.

Women will continue to outnumber men, 53 per cent to 47 per cent; full-time students will outnumber part-time students, 56 per cent to 44 per cent, and enrollment at public colleges will outpace enrollment at private institutions, 78 per cent to 22 per cent.

However, some shifts in the age distribution of college students will occur from 1987, the latest year for which those figures are available, to 1997. While the proportion of those who are 21 and younger will remain at 41 per cent, the proportion of those 22 to 34 will decrease to 38 per cent from 43 per cent, and the proportion of those 35 and older will rise to 21 per cent from 16 per cent.

The number of faculty members is expected to fluctuate with enrollment levels. The ranks of college professors will rise from 723,000 this fall to 726,000 in 1990, drop to 698,000 in 1995, and then rise to 700,000 in 1997.

Increase in Part-Time Professors

Losses in the number of full-time professors will account for the overall decline from 1988 to 1997. Over the period the number of those employed full time will drop to 434,000 from 458,000, while the number of those employed part time will increase to 266,000 from 265,000.

Among other trends, the Department of Education expects these changes from 1988 to 1997:

- Undergraduate enrollment will fall 3.2 per cent, to 10.57 million. The number of associate degrees awarded will fall 3.8 per cent, to 408,000, and the number of bachelor's degrees conferred will decline 7.4 per cent, to 916,000.
- Graduate enrollment will decline 1.5 per cent, to 1.34 million. The number of master's degrees earned will remain at 290,000, while the number of doctorates conferred will rise 3.6 per cent, to 34,700.
- Enrollment in professional programs such as law, medicine, and theology will decline 6.5 per cent, to 260,000, and the number of professional degrees awarded will drop 0.9 per cent, to 73,700.

In a continuation of a pattern of the last decade, the department expects that more women and fewer men will earn advanced degrees in the future. For example, from 1988 to 1997, the number of women earning doctorates is estimated to rise to 15,900 from 12,400, while the number of men earning doctorates will fall to 18,800 from 21,100.

Copies of the 128-page report, *Projections of Education Statistics to 1997-98*, may be purchased for $8.50 each, prepaid, from the Superintendent of Documents, U.S. Government Printing Office, Washington 20402. Request stock number 065-000-00356-2. —JEAN EVANGELAUF

FACT FILE: College and University Enrollment Projections, 1988-1997

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Total enrollment	12,560,000	12,570,000	12,585,000	12,529,000	12,408,000	12,300,000	12,201,000	12,151,000	12,142,000	12,173,000
One-year change	+0.1%	+0.1%	+0.1%	−0.4%	−1.0%	−0.9%	−0.8%	−0.4%	−0.1%	+0.3%
Men	5,880,000	5,890,000	5,905,000	5,884,000	5,845,000	5,798,000	5,744,000	5,705,000	5,688,000	5,688,000
Women	6,680,000	6,680,000	6,680,000	6,645,000	6,563,000	6,502,000	6,457,000	6,446,000	6,454,000	6,485,000
Public institutions										
4-year	5,346,000	5,320,000	5,323,000	5,303,000	5,250,000	5,197,000	5,148,000	5,120,000	5,113,000	5,127,000
2-year	4,411,000	4,444,000	4,454,000	4,432,000	4,389,000	4,361,000	4,338,000	4,329,000	4,333,000	4,342,000
Private institutions										
4-year	2,532,000	2,537,000	2,539,000	2,528,000	2,506,000	2,482,000	2,457,000	2,443,000	2,437,000	2,443,000
2-year	268,000	269,000	269,000	266,000	263,000	260,000	258,000	259,000	259,000	261,000
Full-time students	7,157,000	7,116,000	7,095,000	7,013,000	6,916,000	6,819,000	6,743,000	6,708,000	6,711,000	6,750,000
Part-time students	5,403,000	5,454,000	5,490,000	5,516,000	5,492,000	5,481,000	5,458,000	5,443,000	5,431,000	5,423,000
Undergraduate	10,919,000	10,926,000	10,937,000	10,875,000	10,757,000	10,647,000	10,561,000	10,526,000	10,530,000	10,570,000
Graduate	1,363,000	1,368,000	1,372,000	1,378,000	1,377,000	1,379,000	1,369,000	1,358,000	1,349,000	1,343,000
First-professional	278,000	276,000	276,000	276,000	274,000	274,000	271,000	267,000	263,000	260,000
Full-time-equivalent	9,068,000	9,068,000	9,080,000	9,008,000	8,903,000	8,803,000	8,718,000	8,678,000	8,677,000	8,713,000

SOURCE: U.S. DEPARTMENT OF EDUCATION, NATIONAL CENTER FOR EDUCATION STATISTICS

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News Summary

Articles on inside pages

Richard A. Posner, a judge and legal theorist, has jumped into a debate on law and literature. Page A5.

Moderates voted to quit the fight with fundamentalists at Southeastern Baptist Theological Seminary and to establish a new seminary. Page A15.

Berkeley's faculty delayed action on a plan to require a course exploring the role of minorities in American culture. Page A15.

As committees in the new Congress take shape, college officials are worried about key panels. Page A19.

Most college towns are happy with their institutions, but they'd like to get more money for some services, a survey shows. Page A19.

General Electric Foundation has pledged $35-million to increase the number of minority-group students and professors. Page A27.

Some Americans don't believe it is acceptable to go into debt to pay for college, a study finds. Page A31.

American colleges should greatly expand their study-abroad programs, a panel urged. Page A32.

The academic-support center for athletes at Penn State may serve as a model for such programs, academic advisers say. Page A33.

The Spanish government is trying to improve public higher education in anticipation of competition from private universities. Page A41.

Peru's higher-education system faces a tumultuous future. Page A41.

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More Time Is Devoted to Sports Than to Studies, Athletes Say

In a survey comparing the college experiences of athletes with those of students in other campus activities, players say they spend more time on sports than on academics. Page A33.

State Officials Split Over U.S. Tuition Plan Tied to Savings Bonds

By COURTNEY LEATHERMAN

State higher-education officials are divided over the value of the new federal tax break for parents who buy U.S. savings bonds to finance their children's college education.

Many officials say that the idea is a good one, and that the tax break probably will not interfere with the many state programs designed to make college more affordable.

"It's difficult to deal with a nationwide issue only by piecing together a series of state plans," says Aims C. McGuinness, Jr., assistant executive director of postsecondary education for the Education Commission of the States. "One thing federal government policies do is provide a nationwide context—a degree of equity across state borders."

Other state officials—typically from states that do not currently offer savings plans—worry that the plethora of plans

Continued on Page A24

One-third of the 82,495 people who applied for Michigan's prepaid tuition plan paid up by last week's deadline. Page A25.

Noted Harvard Psychiatrist Resigns Posts After Faculty Group Finds He Plagiarized

BOSTON

Shervert H. Frazier, a renowned psychiatrist at the Harvard University medical school and the head of one of the university's teaching hospitals, has resigned from his posts after a faculty committee concluded that he had plagiarized sections of four papers he published in medical journals and textbooks.

His resignation as general director of the McLean Hospital in Belmont, Mass., and head of the medical school's McLean psychiatry department was announced last week in a letter to the faculty from Daniel C. Tosteson, dean of the medical school.

The allegations that forced the resignation of Dr. Frazier, who served as director of the National Institute of Mental Health from 1984 to 1986, surfaced last August when a graduate student at the University of Rochester wrote Harvard officials informing them that he had discovered passages in Dr. Frazier's papers that had been lifted from other publications.

The letter from Paul Scatena, a graduate student in Rochester's philosophy department, prompted Dr. Tosteson to request a review of the papers by the Medical School Faculty Conduct Committee, which subsequently found examples of plagiarism in four papers that Dr. Frazier had written and published from 1966 to 1975.

'Instances of Careless Scholarship'

"In addition, instances of careless scholarship were found in three of these papers," Dr. Tosteson wrote in his letter to faculty members. "The committee found that none of the articles containing plagiarized material or careless scholarship reported original research data.

"Given Dr. Frazier's extensive bibliog-

Continued on Page A6

AP/WIDE WORLD

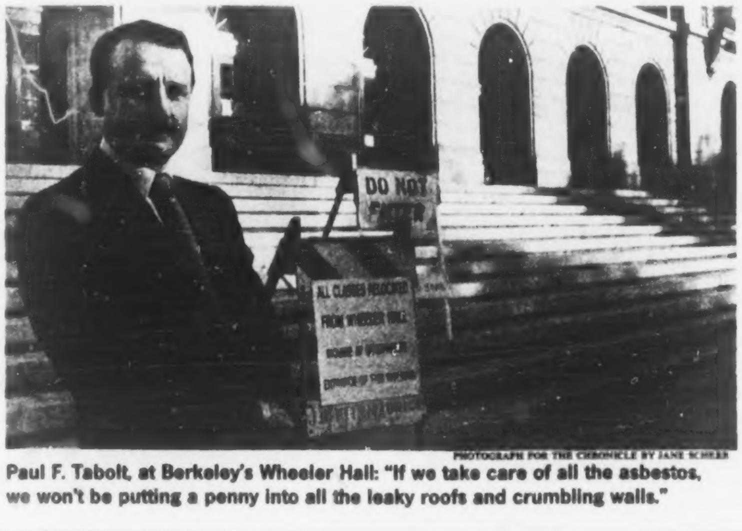
The accused:
Hospital director Shervert H. Frazier

AP/WIDE WORLD

The accuser:
Graduate student Paul Scatena

$2-MILLION FOR 1 BUILDING AT BERKELEY

Huge Cost of Removing Asbestos Causing Concern on Campuses



PHOTOGRAPH FOR THE CHRONICLE BY JANE SCHERR

Paul F. Tabolt, at Berkeley's Wheeler Hall: "If we take care of all the asbestos, we won't be putting a penny into all the leaky roofs and crumbling walls."

By DENISE K. MAGNER

When the University of California at Berkeley found that a campus building was contaminated by airborne asbestos fibers this fall, the discovery cost the institution more than just peace of mind. It also sent an alarming signal to the rest of higher education.

Berkeley will pay about $1.5-million to remove the potentially hazardous asbestos and to decontaminate Wheeler Hall. The university is spending an additional $400,000 to relocate temporarily the English Department and other offices.

For the rest of higher education, the price tag of close to $2-million to treat asbestos in one building on one campus serves as yet another gloomy reminder of a common problem that many institu-

Continued on Page A28

MARGINALIA

CAMERON GERLACH

Again we take our Penn in hand
(If *we* don't, some pettifogger'll)
And send from here throughout the land
Our annual year-end doggerel.

On Hollins and the Ivies,
On Tiffin and Malone,
Of all degrees, we now bestow,
This one, our very own.

The merriest of seasons,
The happiest of years,
For '89 we wish for you
Much laughter, never tears.

Let's tip our Stetson to Tufts and Taft,
Let's play a tune for Thiel and Yuba.
For all the nation's music schools,
Let's toot loud on our tuba.

Let's decorate the house with Berry,
Load the board with Rice and Bacone,
While in the kitchen, Bethune-Cookman's
Chestnut pie is in the Macon.

For Carnegie, let's have a Mellon,
For Citrus C., an Orange that's oranger.
For Indian River, heaps of Curry,
For Campbell U., a soup-filled porringer.

Let's cut the steaming pie of kidney
For every supping Duke and King.
To all who come from Hampden-Sydney,
Let's serve the Bethel everything.

Let's draw Clearwater from the Wells
And quaff a wholesome potion
Or have a glass of Brandywine
Or stronger stuff, by Goshen.

Possibly some Benedictine
Or some wine (Catawba)
Helping everyone to be
Jolly, not macabre.

Let's up, Ohio State, and at 'em,
Raise our brimming eggnog glasses,
'Tis the season, Sweet Briar, Chatham
(Alice Lloyd, at Pippa, Passes).

Let's toast all those at U. of M.,
At Harvard, Swarthmore, Brown, Pomona,
At Lehigh U. in Bethlehem,
At Simmons, Stanford, Cal Sonoma.

To Whitman C. in Walla Walla,
To M.I.T. and then Biola,
To U. Missouri's branch at Rolla,
Let's give a Case of Coker cola.

Let's gather round the tall Pine Manor,
Vassar, Nassau, Husson, Nasson,
And raise a cup of happiness
To all of Mass.'s lads and Lassen.

Let's sing out Carrolls, every one:
Montana's and Wisconsin's;
And not forget Ohio's (John);
Let's serenade the Johnsons.

Let's dance round Wash.'s Evergreen,
Oakwood, or Sequoias;
Let's call the Pine Bluff, Cedar Crest;
And bow to Georgetown's Hoyas.

Let's dance a holiday fandango,
Pirouette a Grace-ful waltz
For Clarion State in old Venango
And for SUNY at New Paltz.

Let's deck the halls of higher knowledge
Dear to you and yours this season;
Hail each university or college—
Ivy, redbrick, healthy, wheezin'.

Let's venture forth and greet our colleagues
In the professoriate,
If not in class, let's search for them
(Where's their laboratory at?)

Let's Doane our furry sleigh apparel
And fly to Idaho at Moscow
Soar to snowy roofs at Maryl-Hurst, then off to fete Don Bosco.

By Shepherd, Fox is watched by nights
While Angelina, Harper, harpist,
Watching o'er Blue Mountain's heights,
Gladden Sitka, where the sharpest

Cold of winter, joined by Snow,
Free-zes Waters on Sage and Reed,
Glazes White Pines, whitens Mo.,
While frost be-Jewells Mann and steed.

Brisk the air we'll find at Frostburg;
Brisk the Pace at Rush and Skidmore,
While the warmth at Isothermal
Never varies (wish it did, More).

Our spine will tingle (a Christmas tactic
At Logan College of Chiropractic).

On Mesa, Butte, and Limestone Boulder,
At Crowley's Ridge, by Stony Brook,
At Rockhurst C. and Rocky Mountain,
We will find a wintry look.

At Harcum, herald angels sing;
The air is filled with sounds of Bliss.
At Angelo, there's caroling;
Let's move on South; don't miss Ole Miss.

(That's near the home of Uncle Judd,
His feet in Miss., not Harvey, Mudd.)

By the fire, let's fill the sock
Trim the Cypress: hang the Ball
And candy Kean for Bay de Noc.
Our treetop Starr will say to all

From Brandeis U. to Santa Monica,
Merry Christmas! Happy Hanukkah!

—C.G.

In Brief

U. of California to Hire 3 to Oversee Weapons Labs

The University of California plans to hire three "liaison officers" to strengthen its oversight of the Lawrence Livermore and Los Alamos National Laboratories.

The university, which manages the weapons laboratories for the U.S. Department of Energy, has been criticized by state legislators and others for what they said was insufficient monitoring. The Livermore laboratory, in particular, has been plagued by employee drug use and by leakage of sewage and radioactive waste into the groundwater east of Oakland.

The liaison officers will be added to the administrative staff of the university's president, David P. Gardner.

The university is receiving $62.5-million for managing the two weapons labs and the Lawrence Berkeley Laboratory over a five-year period.

Suit Seeks to Seal Files From FBI Campus Probe

The Center for Constitutional Rights, a lawyers' group, is demanding in a class-action lawsuit that the Federal Bureau of Investigation forever seal all files related to its investigation of the Committee in Solidarity with the People of El Salvador.

The investigation, which took place from 1983 to 1985 and involved the surveillance of students and faculty members on at least 18 campuses, turned up no link between CISPES and international terrorism. In September, six F.B.I. employees were disciplined for mishandling the case.

The lawsuit, filed in federal district court in New York in behalf of five groups and seven individuals, seeks to prevent the F.B.I. from having access to the files, so they can never be used against the people named in them.

MIT to Get First Patent for Superconductivity

The Massachusetts Institute of Technology will receive the first patent issued by the United States for a process that leads to the production of a high-temperature superconductor.

M.I.T. officials said last week that the U.S. Patent and Trademark Office had sent them a formal document indicating the patent would be issued within a few months.

An administrator at the patent office estimated that between 550 to 600 applications had been filed by universities, companies, and individuals for processes that lead to the creation of high-temperature superconductors—new types of ceramic materials that allow a resistance-free flow of electricity.

The M.I.T. patent covers an invention by two of the institute's materials-science professors—John B. Vander Sande and Gregory J. Yurek—whose method of preparing a superconducting composite overcomes the inherent brittleness of the ceramic superconductors.

M.I.T. has licensed the process exclusively to American Superconductor Corporation, a Cambridge, Mass., company founded by Mr. Vander Sande, Mr. Yurek, and two other M.I.T. materials-science professors.

N.Y. Groups File Suit Over Standardized Tests

Ten high-school seniors and two women's groups last week sued the New York State Department of Education, charging that it practiced sex discrimination by awarding merit scholarships on the basis of scores on standardized college-admissions tests.

The class-action suit, which was filed in federal district court, asked the department to change the way it awards up to $40-million in grants each year. The tests discriminate against girls, who tend to have lower scores than boys, and underestimate the performance of girls in college, the suit charged. The American Civil Liberties Union and the New York Civil Liberties Union are representing the students and women's groups.

A spokesman for the department said that although the agen-

Publishers of Two Education Directories Fight Over Title

By **JEAN EVANGELAUF**

ALEXANDRIA, VA.

Three simple words—"Higher Education Directory"—are at the center of a bitter legal dispute between two publishers.

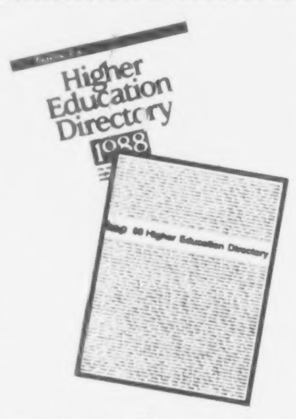
At stake, they say, is a small but solid market for facts and figures about the nation's colleges and universities. Two publications, HEP *Higher Education Directory* and *Peterson's Higher Education Directory*, are battling to be the reference book of choice.

Higher Education Publications Inc. sued Peterson's Guides Inc., charging its rival with trademark and copyright infringement and unfair competition.

The trial is scheduled to begin in federal district court here next week.

Since 1983, HEP, which is based in Falls Church, Va., has published annual editions of its *Higher Education Directory*. Last April, Peterson's introduced its own compendium of college statistics, calling it *Peterson's Higher Education Directory 1988*. The company, located in Princeton, N.J., plans to bring out its 1989 edition next month.

Both directories give the key personnel and other information for each of the more than 3,300 colleges and universities in the United States. While they present somewhat different items, each book includes such basics as an


Higher Education Directory 1988
HEP 88 Higher Education Directory

institution's address, telephone number, tuition, and the names of major administrators. The list price of the HEP book is $37, while that of Peterson's is $36.95.

In its lawsuit, HEP asked the court to order Peterson's to stop using the words "Higher Education Directory" in its publication and to pay HEP compensatory and punitive damages, among other things.

HEP charged in its complaint that the use of the disputed phrase by Peterson's had led consumers to be confused. Such "unfair competition," HEP said, is "causing irreparable injury to HEP's trade, business reputation, prestige, and good will."

In addition, the company said that Peterson's directory included items taken directly from the HEP book, and claimed that Peterson's had copied portions of its format.

Peterson's lawyer, G. Franklin Rothwell, called the lawsuit "so frivolous, it's ridiculous." The company has denied it copied HEP's data or format.

Is the Phrase Generic?

Peterson's said the phrase "higher education directory" was generic and could not be considered a trademark. Peterson's further argued that even if a court did determine that the phrase should be protected by a trademark, then the right to that trademark belongs not to HEP, but to the Council for Advancement and Support of Education, which has produced a publication called *Higher Education Directory* since 1980.

The council last month licensed Peterson's to use the title in exchange for $1,000.

"Peterson's is taking a very inconsistent position," said James E. Shlesinger, HEP's lawyer. "We just want them to change their name, and they refuse. They're saying it's generic, but it must have a lot of value to them because they won't change it."

Last spring, HEP was denied a trademark on the words "higher education directory" by the U.S. patent office. The company is appealing the decision and hopes to have the phrase registered within a few months, Mr. Shlesinger said.

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y would prefer to award the aid on the basis of a test that reflected the high-school curriculum, it was required by the Legislature to distribute the money on the basis of scores on the Scholastic Aptitude Test or the A.C.T. Assessment. The department is now developing its own achievement test and hopes to have it in place next year.

SUNY Campus Officials Meet With Protesters

Administrators at the State University of New York at Binghamton met with student leaders last week to discuss complaints about insensitivity toward women and minority groups on the campus.

The meetings were held following a two-day sit-in at Binghamton's administration building last month by 300 students from Jewish, gay, and women's groups.

The students had been angered by recent incidents on the campus that included the painting of anti-Semitic slogans on the walls of the Jewish Student Union office, an alleged rape of a woman at an off-campus party attended by fraternity members, and anti-Semitic remarks allegedly made by a philosophy professor.

Clifford D. Clark, president of the university, denounced the vandalism and alleged rape and called on the Faculty Senate and the philosophy department to investigate the charges against the professor, a university spokeswoman said.

Arms-Center Chief Quits in Protest at Stanford

Sidney Drell, an internationally recognized physicist and arms-control expert, resigned last week as co-director of the Stanford Center for International Security and Arms Control at Stanford University.

Mr. Drell said he acted to protest Stanford University's refusal to allow interdisciplinary centers to make appointments with professorial titles. Although such appointments would not ordinarily carry tenure, they would provide prestige and additional academic privileges that, Mr. Drell contends, would help attract talented staff members.

Many faculty members oppose allowing such centers to make faculty-rank appointments on their own and also object to the proliferation of adjunct faculty members outside academic departments, Stanford officials said.

Donald Kennedy, the university's president, said he regretted Mr. Drell's resignation and would continue to try to resolve the issue that led to his departure.

The Carnegie Corporation of New York indicated it would review a pending $500,000 grant to the center as a result of Mr. Drell's leaving.

Mr. Drell said he would return to the Stanford Linear Accelerator Center as deputy director.

Corrections

■ An article about Memphis State University's academic center for athletes (*The Chronicle*, November 23) incorrectly identified the institution at which Timothy L. Sumner worked before being hired to run Memphis State's center. It was Mississippi State University.

■ A table of college tuition charges supplied by the College Board (*The Chronicle*, November 9) gave incorrect figures for Fort Lewis College. Tuition for state residents was $1,224 last year and is $1,274 this year. Out-of-state students are charged an additional $3,354 this year.

Chelsea Board Votes to Let Boston U. Run Its Public Schools for 10 Years

CHELSEA, MASS.

Boston University's proposal to run the public-school system in one of Massachusetts' poorest cities moved a step closer to reality last week when the Chelsea School Committee voted 5 to 2 to give a 10-year contract to the university. The vote is subject only to final approval of the contract language.

Earlier the same day, a state Superior Court judge rejected a request from the Massachusetts Federation of Teachers, a chapter of which represents teachers in the Chelsea schools, to block the contract vote. The union, an affiliate of the American Federation of Teachers (A.F.L.-C.I.O.), claims that giving Boston University the right to hire and fire teachers violates the union contract with the school committee.

The union and the State Board of Education also have raised legal questions about the university's attempt to get an exemption from the state's law on public access to school-system records. The university has said such access to its records should be limited to its files on the proposed Chelsea school plan. "They're not going to go on a fishing trip to examine all records of Boston University," John Silber, the university's president, told reporters.

The Boston University proposal to become the first private university in the country to run a public-school system still requires the passage of enabling legislation by the Massachusetts legislature.

The university's plan calls for the creation of "family schools" that would provide everything from nutrition programs for infants to job training and English lessons for adults.

The 3,300-student school system in Chelsea, a small city just north of Boston, is one of the state's poorest academically, with low test scores and high dropout and teen-age-pregnancy rates. Nearly half of the city's residents come from households with annual incomes of less than $10,000.

NOTES ON THE ARTS

200 'Plastered' at Union; on the Scent of Caesar; Joffrey Dancers on Campus; the Dos Passos Prize

PHOTOGRAPHS FOR THE CHRONICLE BY BOB MAHONEY, PICTURE GROUP

Maggie Sherman displays one of the more than 200 plaster-cast masks she helped make at Union College. The finished masks (inset), varied widely.

More than 200 masks—some painted and powdered, others bewhiskered, bewigged, even bejeweled—have been keeping watch this semester in Union College's newly renovated College Center. And if they look oddly familiar to the building's regular users, that's not surprising: The masks are plaster casts of the faces of people in the Union community.

The casts were made and decorated over three days with help from Maggie Sherman, a Vermont artist who has taken an interest in mask-making. Posters around the campus invited anyone who wanted to "get plastered" to come to the College Center at designated times.

Those who showed up ranged from students to members of the faculty and staff and their children. "People really enjoyed themselves," says Brin Quell, Union's press-relations director, who organized the event. "Students told me they got to say things about themselves that their professors never asked. And one said how great it was to have an excuse to touch other people's faces. I think that was really important to a lot of people."

The masks were hung near the College Center's main staircase. There, Ms. Quell says, they produce the eerie effect of "hundreds of faces staring out at you."

Next summer the masks will become part of a larger exhibition at the Albany Institute of History and Art.

■

Emory University's Museum of Art is recreating "Telinum," a perfume used by Julius Caesar, for an exhibition called "The Fragrant Past: Perfumes of Cleopatra and Julius Caesar." Telinum is one of seven fragrances whose ingredients were identified by Giuseppe Donata, a chemist with the National research Council of Italy, from residues in a tomb.

The exhibition, which opens April 5, will also display ancient perfume containers and samples of fragrance ingredients in use from the first century B.C. to the second century A.D.

"In the second century A.D., the people in Rome knew more about plants—about their use as perfumes and as medicines—than our contemporaries," says Monique Seefried, the museum's curator of Near Eastern art. "Their taste and their sense of smell were much more developed than ours. Their cosmetics, remedies, and spicy dishes achieved a degree of refinement and delight to the palate that is lost to us."

■

The Joffrey Ballet will make California State University's Los Angeles campus one of its two West Coast homes.

Beginning in August, the company will spend one six-week rehearsal period each year on the campus, where an extensive fine-arts complex is now under construction. The university will provide living space for the dancers, as well as rehearsal studios and offices. In return, the company will perform on the campus and offer master classes and workshops for students.

The Joffrey company performs both at the City Center in New York and at the Los Angeles County Music Center's Dorothy Chandler Pavilion.

■

Longwood College has given the John Dos Passos Prize for Literature each year since 1980. This year's winner was Lee Smith, who teaches creative writing at North Carolina State University. Her most recent novel, *Fair and Tender Ladies*, was published this fall by G. P. Putnam's Sons.

Fair and Tender Ladies is a collection of letters from a character named Ivy Rowe. Among them is one written while Ivy was a girl:

"It had froze all the previous nigt so when I walked out ther Mrs. Brown, it was so pretty that it like to have took my breth away. Ice just shining on each and evry limb of evry tree and isickles thick as your arm hanging down offen the house. It was like I looked out on the whole world and I culd see for miles, off down the mountain here, but it was new. The whole world was new, and it was like I was the onliest person that had ever looked upon it, and it was mine. It belonged to me.

"Now it is new for me to feel this as I have not had hardly ever a thing of my own, it is handmedowns and pitching in and sharing everything up here on Sugar Fork, they is so many of us up here as you know. But I looked out over all them hills, and the land was sloped so different, from the snow. And every tree was glittering, and Sugar Fork black and singing along mostly under the ice. The snow come plum up to my knees. Nobody else had got up yet and I reckon I was the onliest person in the world. My breth hung like clouds in the air and the sun come up then, it liked to have blinded me. Well now this is the time I know Mrs. Brown when you pray, but to anser your questin if I pray, I cannot. So I know I am evil but I do not feel evil.

"And this is what happened next.

"I heerd them guns popping all threw the hills and then I knowed it was Christmas which I had clean forgot. All the rest of them was sleeping in the house. ETHEL I hollered, and direckly she come, wearing Daddys dead mommas old coat, she looked so funny I like to of died. Get the gun I hollered, and whilst she was doing it I laid rigt down in the snow and made angels, I must of made a thousand angels but I never got wet, that snow was as dry as powder. Lord it was a pretty pretty day. Then I stands up and brushes off Daddys coat real good and drawed in my breth real good, it was like I was brething champane." —L.B.

Side-lines

After 146 years without a nickname, the teams at Hollins College may get one this spring.

Hollins is the only institution in the National Collegiate Athletic Association that does not have a name for its sports teams.

"There just never seemed to be a particular interest in developing a name in the past, although our intramural basketball teams have had various Indian names over the years," said Sandy Broughton, the college's information director.

In recent years, however, Ms Broughton said that Hollins—a women's liberal-arts college—has improved its athletics facilities, and that campus interest in intercollegiate sports has grown.

College officials decided last month to hold a contest to develop a name and a team logo.

Students have been dropping their written suggestions into three ballot boxes on campus. Ms Broughton said her office had received several nominations already, but that she was "sworn to secrecy" not to reveal them.

A committee of students, faculty members, coaches, and administrators is scheduled to recommend a name in January, and the president, Paula P. Brownlee, will make the final choice.

"We're looking for a name that captures the enthusiasm of our students for sports," said Ms. Broughton. "It doesn't have to be the name of a particular animal or thing. It could be an idea that helps sum up our identity, like the North Carolina Tar Heels or Alabama's Crimson Tide."

■

Another team nickname is helping a football player make his entree into the art world.

Quinn Early, a former University of Iowa receiver who now plays for the National Football League's San Diego Chargers, is selling lithographs of his collage, "Hawkeye Spirit," in a store on the campus. The collage commemorates 10 years of football success under Hayden Fry.

The lithographs are selling for $200 to $245 each, and Mr. Early, who majored in art at Iowa, is donating $25 from each sale to the university's athletics program.

■

Coaches often resign or get fired for losing a lot of games, but it isn't often that one gets dismissed before coaching a single game.

But that's what happened to Wally English, who was hired in August to help bring football back to Southeastern Louisiana University. It dropped the sport in 1986 for financial reasons, and will field a team in 1990.

This month, Mr. English was dismissed for what the university's athletics director, Bob Brodhead, called "philosophical differences."

"Wally English is a fine technical coach, but we need more of a public-relations man, a salesman, since we aren't playing for two more years," said Mr. Brodhead.

Athletics

Players Spend More Time on Sports Than on Studies, an NCAA Survey of Major-College Athletes Finds

But they devote as much time to academics as do students involved in other extracurricular activities

By DOUGLAS LEDERMAN

WASHINGTON

College football and basketball players in big-time programs devote considerably more time to their sports than to their studies, according to a survey financed by the National Collegiate Athletic Association.

However, the survey also found that athletes spend about the same amount of time on academic work as do students involved in other extracurricular activities.

The year-long, $1.75-million study compared the experiences of athletes with those of students in other time-consuming extracurricular activities at 42 institutions in Division I, the N.C.A.A.'s top competitive level.

The presidents' commission of the N.C.A.A. undertook the study last year as part of its 18-month "national forum" on the role of college sports, in an effort to inject empirical data into a debate that long has been dominated by anecdotal evidence. Richard D. Schultz, the N.C.A.A.'s executive director, called the study the "most extensive research effort ever done in the field of intercollegiate athletics."

NATIONAL PRESS CLUB

PHOTOGRAPH FOR THE CHRONICLE ©1988, SAM KITTNER

N.C.A.A.'s Richard D. Schultz tells a press conference that the new study is the "most extensive research effort ever done in the field of intercollegiate athletics."

Called a Relatively Positive Portrait

While it shed some new light on the experiences of athletes, the study appears more likely to uphold the *status quo* in college sports than to upset it.

The study—which compared the lives of 2,925 athletes with those of 1,158 students in such activities as journalism, music, and government—contained no major surprises. Leaders of the president's commission said last week that they believed it painted a relatively positive portrait of the current state of college sports.

"I think this report is likely to generate fine-tuning rather than major changes," said Martin A. Massengale, chancellor of the University of Nebraska at Lincoln and chairman of the commission. "It may reassure us that many of the things that have been suspected about our sports programs aren't true. I think it shows we're not that far off."

Potentially Troubling Facts

John W. Ryan, a former chairman of the commission who is now advising the panel, said: "We now know what we only could have hoped before the study: that most of our athletes came to get degrees that they believe are important to them, and that they are getting help in achieving that goal."

Despite that upbeat analysis, the study did reveal a number of potentially troubling facts about the experiences of athletes, particular those who play basketball and football. Among other things, it found that:

- Football and basketball players spend about 30 hours a week on sports during the season, while dedicating about 25 hours a week to attending and preparing for classes. Even in the off-season, they spend nearly as much time on sports as on academics. The average student involved in other extracurricular activities spends about 27 hours a week on academics and 20 hours a week on the activity during its peak season.
- Freshman athletes spend nearly as much time on sports as do other athletes.

Continued on Following Page

Penn State Tries New—and Expensive—Ways to Advise Athletes

By SUSAN OBERLANDER

UNIVERSITY PARK, PA.

In the early 1950's, when he was still an assistant football coach at Pennsylvania State University, Joe Paterno was responsible for monitoring the academic progress of the football players and reporting back to the head coach.

He realized early that many of the athletes who played football at Penn State weren't graduating, and he began taking them to study halls and tutoring sessions in the university's library.

Mr. Paterno, who had majored in English literature at Brown University, did the tutoring himself.

"I would check some of their grammar and help them out if they were having a tough time expressing themselves in a paper," he says. "I tried to encourage them to look things up when they had questions."

Academic advising at Penn State today is much more sophisticated.

In 1987, Mr. Paterno, who has been the university's head football coach for 22

Continued on Page A40

PHOTOGRAPH FOR THE CHRONICLE © 1988, ROSE M. PROUSER

Penn State sports psychologist David Yukelson, here with swimmer Eric Becher, counsels athletes about the pressures of balancing sports and academics.

Key Findings of Study of Intercollegiate Athletics

WASHINGTON

Following are the key findings from the executive summary of the 1987-88 National Study of Intercollegiate Athletics, conducted by the American Institutes for Research for the Presidents Commission of the National Collegiate Athletic Association:

Preparation for College and Career Aspirations

College football and basketball players score lower on the American College Testing (A.C.T.) Assessment Program and on the Scholastic Aptitude Test (S.A.T.) than do students who are extensively involved in other types of extracurricular activities. Student-athletes in intercollegiate sports other than football and basketball score between the two groups.

The pattern for grade-point averages in high school parallels that of the test scores: College football and basketball players report a B average, which is about a quarter of a grade lower than extracurricular students report. Student-athletes in other intercollegiate sports report scores that fall between the other two groups.

Student-athletes are just as likely as students in extracurricular activities to say that, at the time they enrolled, earning a college degree was "of greatest importance" or "important." Student-athletes show considerably more interest than extracurricular students in business and business management degrees and somewhat less interest in the liberal arts, sciences, and engineering fields.

Physical education is named by only about 6 per cent of student-athletes as the field of their intended degree at the time they enrolled in college.

Recruitment

Colleges and universities use more intense recruitment activities—such as visits to homes and paid visits to campuses—with student athletes than they do with extracurricular students. Consequently, student-athletes feel more intense pressure during recruitment than do extracurricular students. Football and basketball players experience far more of the intense recruitment activities and recruitment pressure than do other student-athletes. Grant-recipients in other sports experience more of the intense recruitment activities and feel more intense pressure during recruitment than do non-grant-recipients.

Despite these reported pressures, more than 75 per cent of student-athletes report that recruitment helped them in making the right college choice. Only a small number of student-athletes report that the information they received during recruitment caused them serious problems (3 per cent of football and basketball players and 2 per cent of other student-athletes who receive athletic grants).

Participation in Athletics and Financial Aid

Aspirations and expectations. Approximately 23 per cent of football and basketball players and 30 per cent of grant-recipients in other sports report that, at the time they enrolled in college, they expected to become professional athletes. Approximately 17 per cent of football and basketball players and 24 per cent of grant-recipients in other sports report that, both at the time they enrolled *and* now (at the time of the survey), they expect to become professional athletes. For seniors only, approximately 21 per cent of football and basketball players and 25 per cent of grant-recipients in other sports say they expected to become professional athletes at the time they enrolled and still expect to at the time of the survey.

Time demands. The time demands on both student-athletes and extracurricular students are extensive during the period when sports and extracurricular activities are in season. Student-athletes spend more time in their sports, however, than extracurricular students do in their activities. Football and basketball players spend approximately 30 hours per week in their sports when they are in season—more time than they spend preparing for and attending class combined. They also report missing about two classes per week. While extracurricular students spend less time in their activities than student-athletes, they too spend more time in their activities than they do either in preparing for classes or attending classes, and these students report they miss about one class per week.

During the off-season, the time demands on student-athletes and comparison students are reduced. Football and basketball players and other student-athletes continue to spend more time in their sports than they do either in preparing for or attending class. Extracurricular students spend

How Students Use Their Time

	In season			Out of season		
	Football and basketball	Other sports	Extra-curricular *	Football and basketball	Other sports	Extra-curricular *
Number of hours per week spent in:						
Main sport / activity	30.0	24.6	20.4	17.9	15.6	11.4
Class and labs	13.7	14.0	15.0	14.4	14.2	15.3
Preparing for class	11.6	13.2	12.6	14.6	15.3	14.6
Social activities	9.7	11.4	10.6	13.4	14.1	12.7
Relaxing alone	9.2	11.1	8.3	11.1	12.8	10.0
Extracurricular activities	3.7	4.3	6.2	6.4	6.7	6.9
Number of classes missed per week	2.0	2.2	1.2	1.1	1.1	0.8

* Includes students who participate extensively in such activities as performing arts, journalism, and campus work-study programs

NCAA Reports on Survey of Athletes

Continued from Preceding Page

and "redshirted" freshmen (those who are held out of intercollegiate competition during their first year) spend as much time on sports as do freshmen who are playing in varsity competition.

- Although athletes get significantly more academic assistance than do other students, they have lower grade-point averages than their counterparts and say they find it harder to make academic work their top priority.
- Athletes, especially football and basketball players, have considerably less spending money than students in other extracurricular activities, even though they receive significantly more financial aid related to their outside activity than do other students. Most athletes said they did not have enough spending money.
- Football and basketball players are much more likely than students in other extracurricular activities to feel isolated from other students on their campuses.
- A fourth of football and basketball players said they felt pressured to ignore their injuries, and nearly half said they had been subjected to at least one incident of physical or mental abuse at their institutions.
- Twelve per cent of football and basketball players were identified as "problem" students, those who suffered from at least two of five difficulties—psychological distress, physical distress, difficulty in avoiding drugs or alcohol, mental and physical abuse, and unsatisfactory academic performance. The percentage increased among athletes in the most competitive sports programs.

The report released last week was a broad overview of the findings of the study, which was conducted by American Institutes for Research, a behavioral and social-science research group based in Washington.

Four other reports will be released next spring. Two will focus on the special circumstances of black and female athletes; the third will explore more fully the academic performance of athletes, and the fourth will analyze the responses of the students to open-ended questions that they were asked about their college experiences.

Observers had thought that the study's newfound hard data might lead to more-informed debate over such issues as freshman eligibility, Proposition 48, and financial aid.

But many college-sports officials said last week that they doubted the studies would have much of an impact on such debates.

Both Mr. Massengale and Bernard F. Sliger, president of Florida State University and chairman of the commission's national-forum committee, said the new evidence had not convinced them of the need for freshman ineligibility.

Mr. Massengale did say the data about the time that players spend on sports could lead to some changes. He said universities needed to do a better job of helping athletes manage their time, but also said that perhaps the demands on athletes' time could be reduced.

Another matter that might get increased attention because of the study is spring football practice. The survey showed that, even in the off-season, football and basketball players spend nearly as much time on sports as on their studies. Football coaches have fought efforts in recent years to cut back on such off-season practice.

Mr. Sliger said he believed the findings could lead to a reduction or perhaps even the elimination of spring practice.

"I think this is some information we didn't have before," he said.

To Be Debated in January

It is unclear how much the association will do with the new information.

The members of the N.C.A.A. will discuss and debate the findings of the study at a day-long forum in January, the fourth and final session sponsored by the commission.

And individual presidents are expected to discuss the findings with coaches and sports officials on their own campuses.

A range of N.C.A.A. committees, including the presidents' commission, are likely to pore over the survey results to develop possible changes in the association's rules. Mr. Massengale said that he doubted any legislation would be proposed in time for the N.C.A.A.'s 1990 annual meeting, but that he thought measures might be considered in 1991.

At the very least, it seems, the current study will serve as a "baseline" for future longitudinal studies about college sports.

Researchers at American Institutes of Research said they hoped to keep track of the athletes they interviewed for the current study in order to follow their progress 5, 10, and 15 years in the future.

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less time in their activities than student-athletes do during the off-season. Both student-athletes and extracurricular students report they miss about one class per week when out of season.

There are no reliable differences in the average number of hours per week freshman redshirts (i.e., freshmen who only practice with the varsity) spend in their sports as compared to freshman student-athletes who compete (about 25 hours for each group when in season). In season, freshman redshirts and active competitors spend approximately five hours per week less in their sports than do other class members [sophomores, juniors, and seniors]. In short, freshmen are working almost as long in their sports as other student-athletes, whether they are redshirts or players on the roster.

Relations with coaches. Seventy-two per cent of football and basketball players and 70 per cent of other student-athletes report they are satisfied with the way their coaches have helped them improve as athletes. In contrast, 88 per cent of extracurricular students report themselves satisfied with the way their activity directors have helped them improve in their extracurricular activities.

Student-athletes and extracurricular students have somewhat different views on the importance of coaches and activity directors helping them with problems and responsibilities outside of their sports or activities. For example, while both student-athletes and extracurricular students feel it is important for coaches and activity directors to encourage good performance in class, this is rated as being of the greatest importance by more of the student-athletes. Similarly, student-athletes feel more strongly that it is important for coaches to keep track of their performance in courses. When asked to provide an overall rating of the performance of their coaches or activity directors in these areas, 83 per cent of football and basketball players and 81 per cent of other student-athletes report their coaches are doing fairly well or better. About 28 per cent of football and basketball players, 24 per cent of other student-athletes, and 24 per cent of extracurricular students report their coaches or activity directors are performing excellently.

Financial aid. There are substantial differences in the numbers of student-athletes and comparison students who receive grants tied directly to participation in sports or extracurricular activities. Most student-athletes report they have received a partial or full athletic grant at some point in college—almost 74 per cent of football and basketball players and 66 per cent of the student-athletes in other sports, as compared to about 25 per cent of extracurricular students who report ever having received an activity grant. About 60 per cent of football and basketball players and 19 per cent of other student-athletes report they currently receive full athletic grants that cover the costs of tuition, room, and board, and related educational expenses.

In spite of these sizeable differences, student-athletes report having less money each month after tuition and other education-related expenses are paid. Football and basketball players in particular report about $30 less each month than do extracurricular students. In answer to whether they feel these monthly amounts for personal expenses are adequate, 58 per cent of football and basketball players say "no," compared to 42 per cent of other student-athletes and extracurricular students. Football and basketball players, however, report it is easier for them to obtain money for personal expenses. For example, they report it is easier for them as college athletes to get summer jobs.

Academic Performance

Courses taken and majors. There is a tendency for student-athletes, especially football and basketball players, to be in classes with other student-athletes, but among courses taken by student-athletes, about 55 per cent are also taken by extracurricular students. The reported current majors of both groups of students are similar to the majors they say they were interested in at the time they enrolled. Student-athletes are more likely to report current majors in business and business management, professional occupations (e.g., architecture, home economics), and physical education (only 5 per cent plan majors in physical education), and less likely than extracurricular students to report majors in the arts and humanities, education, and engineering. Football and basketball players are least likely to major in biological, physical, or computer sciences.

Grade-point average and course performance. Student-athletes, on average, have lower grade-point averages (G.P.A.'s) than do extracurricular students. Among student-athletes, football and basketball players have, on average, the lowest G.P.A.'s.

At the same time, comparable numbers of student-athletes and extracurricular students say they have

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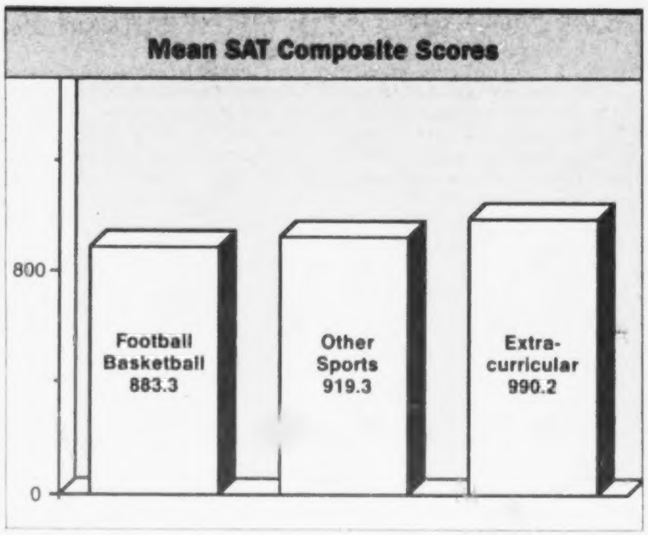

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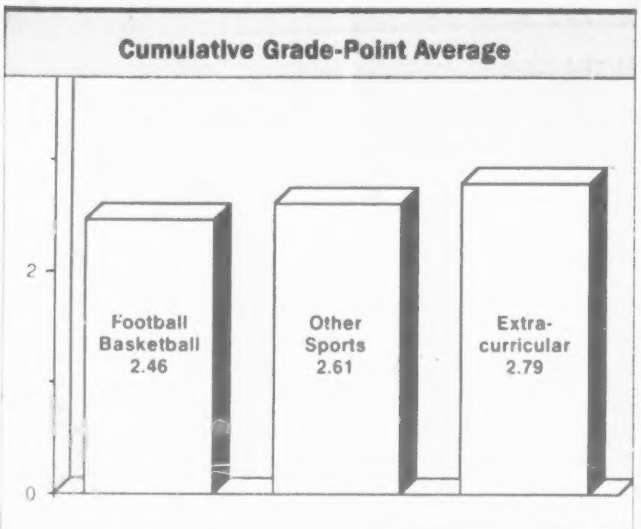
Key Findings of NCAA Study



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ever repeated courses, received incompletes, and been on academic probation.

Although these three measures of academic performance show no reliable differences between student-athletes and comparison students, there are consistent links between them and the more or less successfully-competitive football and basketball programs. Specifically, football and basketball players in more successfully-competitive programs are more likely than those in less successfully-competitive programs to have (1) found many courses too difficult, (2) received incompletes, and (3) been on academic probation. For example, 34 per cent of football and basketball players in more successfully-competitive programs have been on academic probation, as compared to 26 per cent of football and basketball players in less successfully-competitive programs.

Use of educational resources and perceived academic demands. Many student-athletes, especially football and basketball players, take academic skill-building courses at college. More student-athletes take these courses than do extracurricular students, and more football and basketball players take these courses than student-athletes in other sports.

Student-athletes also report that it is easier for them as athletes to get help in their courses—help from teaching assistants, tutors, and academic counselors. Despite the greater availability of these educational aids, however, student-athletes believe that it is more difficult for them as athletes to perform well academically. For example, student-athletes, and football and basketball players especially, report that it is harder to make their academic work their top priority and to get the grades they are capable of getting. These findings are related to successfully-competitive football and basketball programs in important ways. Football and basketball players in more successfully-competitive programs report that learning aids (*e.g.*, tutors) are more available, but that it is even more difficult for them as athletes to meet the demands of their academic schedules.

Satisfaction with educational experiences and achievements. Student-athletes and extracurricular students are generally satisfied with their educational experiences. About 90 per cent of each group are satisfied with their current courses, about 95 per cent are satisfied with their college major, and 65 per cent are satisfied with their performance in courses. There are no reliable differences in satisfaction between student-athletes and extracurricular students.

Health and Personal Development

General health and incidence of injuries. Student-athletes and extracurricular students report about the same levels of general health. Fewer than 30 per cent of either group report problems with colds, fewer than 25 per cent report any problems with sleeplessness, and fewer than 15 per cent report any eating problems. Football and basketball players report many more problems with extreme tiredness or exhaustion than student-athletes in other sports. This is most evident for football and basketball players in more successfully-competitive programs.

Student-athletes report it is easier for them as athletes to keep in good physical shape and to get medical treatment than it is for other students generally. Not surprisingly, many fewer extracurricular students report that their participation in extracurricular activities makes it easier for them, as compared to other students, to either keep in shape or receive medical treatment. Over all, 39 per cent of football and basketball players, 46 per cent of other student-athletes, and 36 per cent of extracurricular students report that being an athlete or an extracurricular student made it easier to avoid drugs. However, 12 per cent of football and basketball players, 6 per cent of other student-athletes, and 7 per cent of extracurricular students report that being an athlete or extracurricular student made it harder to avoid drugs.

Fifty-two per cent of football and basketball players and 49 per cent of student-athletes in other sports report being injured as a result of participation in intercollegiate sports, as compared to only 12 per cent of extracurricular students who report being injured in an extracurricular activity. Twenty-five per cent of the injured football and basketball players and 12 per cent of the injured participants in other sports report they felt intense pressure to ignore their injuries. Only about 2 per cent of extracurricular students report they felt intense pressure to ignore injuries resulting from an extracurricular activity.

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ries differed according to the more or less successfully-competitive programs in which student-athletes were engaged. Student-athletes generally report themselves more satisfied than extracurricular students with the medical care they receive from their institutions.

Physical and mental abuse and emotional well-being. All students were asked whether they had ever experienced physical or mental abuse at their institutions. (The sources of the abuse were *not* asked for in the questionnaires.) More football and basketball players report *ever* (*i.e.*, one or more times) having been abused physically and mentally at their institutions than either student-athletes in other sports or extracurricular students report. More football and basketball players than student-athletes in other sports report that they have experienced isolation from other students at their institutions. Football and basketball players are not reliably different from extracurricular students in their reports of feeling isolated, however.

These findings for football and basketball players show differences by whether the programs are more or less successfully-competitive. Football and basketball players in more successfully-competitive programs report more often having experienced physical and mental abuse and feelings of isolation than do football and basketball players in less successfully-competitive programs.

Opportunities for personal growth. Questions about opportunities for personal growth dealt with leadership and personal development, sociability, assertiveness, and rewards and recognition from others. Compared to extracurricular students, student-athletes in general report it is harder for them as athletes to take advantage of many opportunities for personal growth. For example, student-athletes report it is harder for them to take leadership responsibility, to learn from their mistakes, to talk about personal problems with others, and to speak their minds.

In contrast, in the area of rewards and recognition from others, student-athletes feel it is easier for them to earn praise and to travel to new places. Football and basketball players in particular report that it is easier for them as athletes to get special treatment from local townspeople and merchants. This perception is somewhat stronger among football and basketball players in more successfully-competitive programs.

Social Activities and Interpersonal Development

Housing and living arrangements. About 30 per cent of football and basketball players and 17 per cent of other student-athletes report they live in institutional housing that consists mostly of other student-athletes. About 20 per cent of football and basketball players report they are required to do so. In addition, some student-athletes report they are required to eat their meals with their teammates.

Although football and basketball players believe that living with their teammates is a positive arrangement, such arrangements may contribute to feelings of isolation. Football and basketball players who live in housing composed mostly of student-athletes are more likely than those who live in housing with other kinds of students to report frequent or occasional feelings of isolation.

Interactions with other students and family. Students, including both student-athletes and extracurricular students, tend to socialize with others who have similar interests. When they socialize, student-athletes and extracurricular students tend to talk about different things. Football and basketball players, for example, are more likely to talk about their families and their sport, while extracurricular students are more likely to talk about classes, current events, and music.

When faced with personal problems, most student-athletes and extracurricular students confide in friends. Student-athletes are more likely than extracurricular students to confide in teammates and family members. As compared to extracurricular students, football and basketball players are more likely to confide in teammates, academic advisers, and family members.

Student-Athletes With Multiple Problems

To be sensitive to the special needs of student-athletes having the most difficulties in college, "problem profiles" were developed for all students in the sample. These profiles were based on 16 indicators of problems, grouped into five areas: (1) psychological distress, (2) physical distress, (3) difficulty in avoiding drugs or alcohol, (4) mental and physical abuse, and (5) unsatisfactory academic performance.

Student-athletes with problems in at least two of the five areas were identified for further study. Football and basketball players composed the largest group of student-athletes

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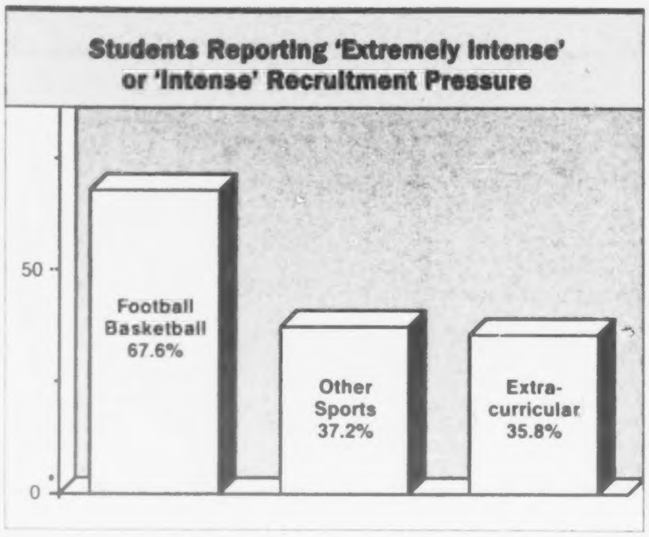

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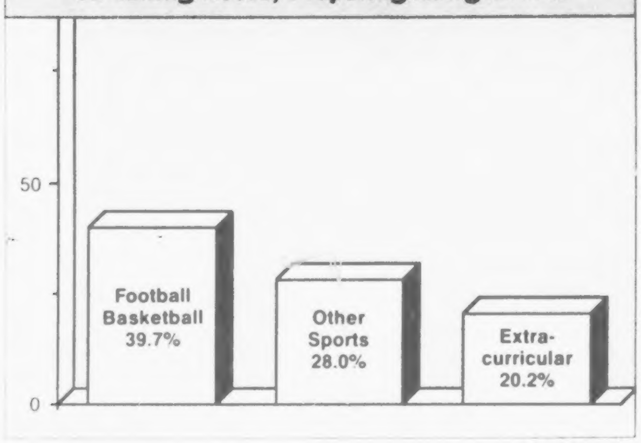

Key Findings of NCAA Study

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identified; about 12 per cent of the sample of football and basketball players were players identified as having difficulties in college using this criterion. Among student-athletes in other sports, approximately 4 per cent were identified as having multiple problems. About 7 per cent of extracurricular students were also identified.

As a preliminary step in identifying factors that may be associated with these problems, analyses were conducted that tested relationships between selected indicators of institutional programs and the presence on campus of student-athletes with multiple problems. The results suggest that student-athletes with multiple problems are found more often in colleges and universities with more successfully-competitive football and basketball programs. About 14 per cent of the football and basketball players in more successfully-competitive programs fall into the problem group as contrasted to 7 per cent in less successfully-competitive programs. In addition, about 14 per cent of the football and basketball players who experience more intense recruitment fall into the problem group as compared to 7 per cent who experience less intense recruitment.

Summary and Conclusions

Four sets of questions from the N.C.A.A. Presidents Commission were the starting point for the 1987-88 National Study of Intercollegiate Athletes. In answer to the questions, the overall results from the study describe a complex picture of the student-athlete.

Both student-athletes and extracurricular students perceive that earning a college degree is very important. Both groups of students take many of the same types of courses, but their major fields of study are somewhat different. Student-athletes are more likely to major in business, while extracurricular students are more likely to major in arts and humanities. Both student-athletes and extracurricular students spend about the same numbers of hours per week preparing for their classes, in their classes, and in social activities, and both groups report themselves generally satisfied with their performance in their courses and with their academic performance. In all of these respects, student-athletes are more like extracurricular students than some might have imagined.

In contrast to extracurricular students, however, student-athletes spend more time in their sports, and they are more likely to have received a grant based on their participation in these activities. In spite of having these grants more often, student-athletes report having less money available each month for personal expenses, and they regard what they do have as less adequate. Student-athletes report more learning resources available to them (*e.g.*, tutors), but they also report greater difficulties in making academic work their top priority. Student-athletes come to college less well-prepared academically and have lower grade-point averages in college than extracurricular students. In all of these respects, students participating in intercollegiate athletics are different than students participating extensively in other extracurricular activities.

The experiences of student-athletes in "big-time" sports accentuate the differences between student-athletes generally and extracurricular students. Football and basketball players are different from other student-athletes in many ways. Football and basketball players spend more time in their sports, receive more full-cost athletic grants, perceive what money they have for personal use as less adequate, have more educational resources available to them, and, these resources notwithstanding, perform more poorly academically and feel less capable of meeting their academic demands. Football and basketball players in more successfully-competitive programs are at the extreme on many of these measures. Participation in "big-time" sports comes with a mix of advantages and disadvantages for student-athletes.

Finally, student-athletes are recruited more intensely than extracurricular students, although their scores on college entrance examinations and their high-school grade-point averages are somewhat lower than those of the extracurricular students. The pressure on student-athletes during recruitment is perceived by these young men and women as intense. Despite the pressure, student-athletes are likely to see the recruitment process as helping them to make the right choice of a college or university.

Columbia U.'s Football Coach Resigns

Larry McElreavy, the head coach of Columbia University's football program, resigned last week, although he continued to deny an assistant coach's charges of professional misconduct.

The assistant coach, Doug Jackson, told a university administrator last month that Mr. McElreavy had lost the respect of his players because of alcohol abuse and an extramarital affair that he was allegedly having with a member of the athletics-department staff. Both Mr. McElreavy and the staff member have denied the latter charge, and Mr. McElreavy has denied the alcohol-abuse charge, as well.

Mr. Jackson said that Mr. McElreavy had been drinking before games and missing team meetings and said the coach had nearly passed out during the team's game against Dartmouth College early last month because he was hung over.

However, the university's administration conducted an investigation and voiced its support for the head coach, saying that team doctors who had examined him at Dartmouth and in New York after the game found that he was suffering from high blood pressure and extreme anxiety.

Mr. McElreavy said he had resigned because of the adverse effect the negative publicity about him was having on his family.

Mr. Jackson's contract with the university expires July 1. Norman N. Mintz, the university's executive vice-president for academic affairs, denied reports that Mr. Jackson would be dismissed. But he said that Mr. McElreavy's resignation would prompt a review of all football coaching assignments. A search for a new head coach already is under way.

Mr. McElreavy compiled a 2-28 record during his three years at the university. This year's team finished with a 2-8 record and snapped a record 44-game losing streak dating back to 1983. —SUSAN OBERLANDER

Athletics Calendar

December 15-16: Sports law. Regional seminar sponsored by the National Association of Collegiate Directors of Athletics, San Diego Marriott, San Diego. Contact: Tim Gleason, NACDA, P.O. Box 16428, Cleveland 44116; (216) 892-4000.

January 8-12: Governance. Annual convention, National Collegiate Athletic Association, San Francisco. Contact: N.C.A.A., P.O. Box 1906, Mission, Kan. 66201; (913) 384-3220.

February 12-14: Sports law. 8th Annual Sports Law Conference, Holiday Inn Four Seasons, Greensboro, N.C. Contact: Sports and the Courts Inc. P.O. Box 2836, Winston-Salem, N.C. 27102.

March 30–April 1: Governance. Annual legislative meeting, National Junior College Athletic Association, Charlotte, N.C. Coatact: NJCAA, P.O. Box 7305, Colorado Springs, Colo. 80933-7305; (719) 590-9788.

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Penn State Tries New—and Expensive—Ways to Advise Athletes on Studies

Continued from Page A33

years, helped establish an academic-support center for athletes.

With a $600,000 annual budget paid for by the athletics department, the center gives athletes access to four academic advisers, a career-development specialist, a sports psychologist, several part-time tutors and study-hall monitors, and computer programs and tapes about improving study habits.

Many academic advisers say the center may serve as a model for such programs around the country.

The program is unusual because of the amount of money it receives and the size of its staff, which is large by the field's standards.

The director of the center reports to an academic administrator rather than to the athletics director, another feature that contributes to the program's success, says Donald E. Sheffield, the center's director and previously an instructor in Penn State's physical-education department.

Control of Program Shifted

Penn State is one of several universities that, in recent years, have given academic administrators, rather than sports officials, control over their academic-advising programs for athletes.

At Penn State, Mr. Sheffield reports to the acting dean for undergraduate programs, Jerry B. Covert. Before the new program was set up, the academic advisers reported to the athletics director.

The athletics department provides the money for the program, but Mr. Sheffield and Mr. Covert decide how it should be distributed. They also supervise the academic progress of the athletes.

Donald Ferrell, one of the academic advisers, says: "It helps to have someone who carries the thunder and lightning of the university to be an overseer of the program. It lends credibility."

A system of checks and balances between sports officials and academic administrators is the key to the program's success, says Mr. Covert.

Although Penn State's coaches say they support the program, they sometimes disagree with the academic advisers on how many hours of study sessions their athletes need.

"Sometimes, when a coach is in the middle of his sport's season, he has blinders on," Mr. Sheffield says.

Mr. Paterno says that some of the athletes recruited to Penn State today are more deficient in basic academic skills than the athletes he tutored in the 1950's.

"The main problem is that they don't read as much," he says.

The Penn State system is designed to be flexible, and athletes who are doing well in their classes are not required to spend as much time in mandatory study, the advisers say.

A Handful of Centers

Only a handful of academic centers for athletes exist in the country today, although most universities with sports programs have some sort of advising program for their athletes, says Robert Bradley, president of the National Association of Academic Advisors for Athletics and director of an academic-support center for athletes at the University of Kentucky.

Centers allow universities to channel resources into an organized system designed to help athletes succeed academically, he says. They also make it easier to track athletes' academic progress, he adds.

Two-thirds of the Penn State center's $600,000 budget for 1988-89 goes to staff salaries, and the rest pays for special programs, publications, and other operating expenses.

In many big-time college-sports programs, academic-advising operations subsist on annual budgets ranging from $100,000 to $250,000, and employ only one or two advisers. But Mr. Sheffield and the Penn State advisers say the programs need not be as well financed as the one at Penn State to thrive. Such programs can succeed with less money, they say, as long as they have the support both of the university's top administrators and of its coaches.

The theme of the Penn State center may best be summed up by a description by one of the academic advisers, Bruce Hale: "We're doing less crisis management and more education."

In past years, Mr. Hale and the other advisers say, they concentrated their efforts on students who were having trouble in their classes. Now they are trying to catch problems before they develop by focusing on athletes when they are freshmen, and by closely monitoring the academic progress of all of Penn State's 800 athletes in 28 different sports.

© 1988, ROSE M. PROUSER

Donald E. Sheffield: "Sometimes, when a coach is in the middle of his sport's season, he has blinders on."

All freshman athletes are required to take a special seminar about study habits, as well as classes on "Values and Health" and "Academic and Career Exploration."

Sandy Meyer, coordinator of the Freshman Enrichment Program, established in 1987, says many of the athletes resent being required to take the three courses, attend study sessions, and report to advisers each week on their progress in class.

But the athletes who went through the program last year now say it has helped them improve their study habits and eased their transition from high school to college work, she says.

Academic advising for athletes traditionally has concentrated on meeting with players in offices to talk about classes and grades, but at Penn State, the advisers are attempting to create a new tradition: To extend their support to all of Penn State's athletes, the advisers and the sports psychologist spend part of most days near the playing fields.

The advisers say the frequent visits to practices have made their jobs easier. Athletes become more receptive to their suggestions about studying, the advisers say, when they get to know and respect the counselors.

"I like to be able to tell our softball players, 'Remember that winning play you made today in practice? Now if you can just channel that same energy into studying for your math test tonight, you'll do fine,' " Mr. Hale says.

Among their other duties, the counselors try to help the athletes understand the academic requirements they must meet to be eligible for sports under the National Collegiate Athletic Association's rules and Penn State's standards.

But the program exists for much more than keeping athletes eligible, says Mr. Sheffield.

One of its unusual features is the role of the university's sports psychologist, David Yukelson. Mr. Yukelson was hired specifically to counsel athletes about the pressures of balancing sports and academics.

'Little Fish in a Big Pond'

At most universities, sports psychologists concentrate only on methods of improving an athlete's on-field performance. Although he does offer seminars on performance enhancement, Mr. Yukelson also talks to athletes about their lives outside sports. That's important, says Mr. Sheffield, because many new athletes at Penn State have had their entire identity shaped by sports.

Ms. Meyer, the coordinator of the program for freshmen, asks: "What do you do with Johnny Smith, the high-school football player who was a star and who probably had a 'Johnny Smith Day' in his hometown?"

Such students must adjust to being "little fish in a big pond" on a campus with more than 36,000 students, she says. Some of them get confused and disillusioned when they realize that their chances of turning professional after graduation are slim, she says.

Mr. Yukelson and other staff members at the center can step in at that point and help the athletes deal with choices they must make about their future, the advisers say.

Mr. Hale says they don't try to take away athletes' dreams of turning professional. "We just try to get them to make more out of their dreams."

The center's administrative offices are in Penn State's Bouke Building, in the central part of the campus, where Mr. Sheffield; Sally Hattig, an academic adviser who doubles as a career-development specialist; Mr. Yukelson; and Ms. Meyer all work.

The rest of the center's services—including nightly study sessions and tutorials—are housed in buildings in the west and east parts of the university to make them more convenient to athletes on this sprawling campus, which includes 540 acres for classroom and office buildings and dormitories, and 358 acres for athletics fields.

James I. Tarman, the university's athletics director, says: "I'm not sure if we'll ever have a centralized facility for the center, but then I'm not sure if the students and coaches would like one. It would probably just mean a farther walk for them."

Mr. Paterno says the success of the center will depend on how much athletes are willing to take advantage of its resources.

"You have to take the crutch away from them at some point," he says. "We have to be careful not to make them too dependent. It's up to them to do the work."

The Lineups and Money for This Season's Bowl Games

Bowl	Date	Time (EST)	Location	Teams	Est. payment per team *
All-American	Dec. 29	8:00 pm	Birmingham, Ala.	Florida vs. Illinois	$ 800,000
Aloha	Dec. 25	3:30 pm	Honolulu	Washington State vs. Houston	500,000
California	Dec. 10	4:00 pm	Fresno, Cal.	Western Michigan vs. California State–Fresno	180,000
Cotton	Jan. 2	1:30 pm	Dallas	Arkansas vs. UCLA	2,500,000
Fiesta	Jan. 2	5:00 pm	Tempe, Ariz.	Notre Dame vs. West Virginia	3,000,000
Florida Citrus	Jan. 2	1:30 pm	Orlando, Fla.	Clemson vs. Oklahoma	1,150,000
Freedom	Dec. 29	9:00 pm	Anaheim, Cal.	BYU vs. Colorado	500,000
Gator	Jan. 1	8:00 pm	Jacksonville, Fla.	Georgia vs. Michigan State	1,000,000
Hall of Fame	Jan 2	1:00 pm	Tampa, Fla.	Syracuse vs. Louisiana State	850,000
Holiday	Dec. 30	8:00 pm	San Diego	Wyoming vs. Oklahoma State	880,000
Independence	Dec. 23	8:00 pm	Shreveport, La.	Southern Mississippi vs. Texas–El Paso	500,000
Liberty	Dec. 28	8:00 pm	Memphis	South Carolina vs. Indiana	1,000,000
Orange	Jan. 2	8:30 pm	Miami	Nebraska vs. Miami (Fla.)	2,750,000
Peach	Dec. 31	1:00 pm	Atlanta	Iowa vs. North Carolina State	800,000
Rose	Jan. 2	5:00 pm	Pasadena, Cal.	Michigan vs. Southern California	6,000,000
Sugar	Jan. 2	8:30 pm	New Orleans	Auburn vs. Florida State	2,750,000
Sun	Dec. 24	1:00 pm	El Paso	Alabama vs. Army	1,000,000

* A team that belongs to a conference will be required to split its payment with the other teams in its league, based on that conference's revenue-sharing plan. Universities which do not belong to a conference will keep the entire estimated payment, after expenses.

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News Summary

Articles on inside pages

A dispute has resurfaced over the validity of different approaches to writing history. Page A4

The human genome project, facing budgetary realities, may focus first on simple organisms. Page A4

The movement to create "academic alliances" between high school and college teachers is considered a success by many people. Page A23

A coalition of education organizations has asked President-elect Bush to propose an 11-per-cent increase in education spending. Page A27

On the tax issues of most concern to college lobbyists this year, the plans of key policymakers are still a mystery. Page A27

Drug tests for all prospective state employees in Florida, including new college presidents, were proposed by the Governor. Page A27

Anxieties about money and status, among other things, have caused growing stress among college freshmen, a survey finds. Page A32

The N.C.A.A. may turn to year-round, random drug testing to halt the use of steroids. Page A35

South Africa is contemplating a startling possibility—the integration of its white universities over the next 10 to 20 years. Page A39

Racial tensions between Chinese and African students worsened in China and spread last week to other cities, including Beijing. Page A39

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Financial Squeeze at U.S. Observatories Forces Staff Cuts, Deferred Maintenance

By KIM A. McDONALD

U.S. astronomers, who have long enjoyed the world's most sophisticated research facilities, are now caught in a serious financial squeeze—a result of sharply higher costs for building and repairing observatories and of the failure of federal support to keep pace with inflation.

Administrators of the country's national observatories complain that to make ends meet they have been forced to reduce their staffs, defer maintenance, and put off purchases of new equipment.

Some fear that unless Congress provides a major increase next year, it may be difficult to keep all of the existing facilities operating—or to consider replacing the 300-foot radio telescope that collapsed in Green Bank, W. Va., two months ago.

Until that dramatic collapse, which reduced a national facility used by hundreds of astronomers to a pile of twisted metal, the "crisis" in astronomy, as some have termed it, had gone largely unnoticed by the public.

'It Just Doesn't Make Any Sense'

While most fields of science have received healthy increases in federal support, astronomy, to the puzzlement of many in the discipline, has quietly remained a neglected stepchild.

"In a period in which we are talking about doubling the budget of the National Science Foundation, I have a hard time understanding why astronomy can't get enough funding to cover cost-of-living increases," complains Sidney C. Wolff, director of the National Optical Astronomy Observatories in

Continued on Page A8

Universities, Government Labs, and Industry Urged to Collaborate on Superconductors

WASHINGTON

A Presidential advisory panel last week called on universities, government laboratories, and companies to combine their talents and apply the results of recent research on superconductivity before other countries take the lead in the technology.

The panel recommended the creation of four to six consortia—each composed of several companies, a government research laboratory, and a university—that would accelerate the development of products that make use of high-temperature superconductors.

Such materials, which allow a resistance-free flow of electricity, are expected to revolutionize the electrical and electronics industries over the next decade, paving the way for such developments as high-speed computers and trains.

Although many of the high-temperature superconductors were discovered in the United States, American researchers fear that Japan and other countries will be better at capitalizing on the technology by developing applications that can be rapidly turned into new products.

That concern prompted President Reagan last February to appoint a panel of

Continued on Page A6

Scholars' Panel Calls Humanities Healthy, Assails Critics' Views

Future doesn't lie in blind return to the past, report asserts

By BEVERLY T. WATKINS

Contrary to the claims of critics, the humanities are in remarkably good condition on the nation's campuses, says a report released last week by the American Council of Learned Societies.

Students who would have enrolled in business, technology, and law a few years ago are now turning to the humanities in growing numbers, the report says. Both undergraduate and graduate students "evidently feel that exciting things are taking place in the humanities, in the self-consciously innovative sectors as well as in the traditional departments."

The report, called "Speaking for the Humanities," contends that critics are "wide of the mark" in attacking the humanities for, among other things, valuing research over teaching, producing specialized scholars who cannot communicate with the public, saving their best professors for graduate courses, and skewing the curriculum by adding inappropriate works.

'On the Defensive'

It also calls "incorrect" the charge that the humanities disciplines brought about their own much-publicized enrollment decline.

The report was developed by six humanities professors who were worried about the attacks on their disciplines, feeling that

Continued on Page A11

The text of "Speaking for the Humanities," a report from the American Council of Learned Societies, begins on Page A11.

Iowa's Recovering Economy Brings New Scrutiny, Not New Money, Colleges Find

By SCOTT JASCHIK

DES MOINES

"Just wait 'til the farm crisis ends."

A visitor to Iowa colleges and universities a few years ago would hear that refrain time and again from faculty members and administrators talking about how the state's economic problems were hurting Iowa higher education.

Sure, they would say, vacant positions were not being filled, tuition was rising rapidly, and buildings and morale were crumbling. But they would quickly add that as soon as farm prices started to stabilize, the state would return to its traditional strong support for education.

Not quite. Today, signs of economic recovery abound in Iowa. New buildings are going up in Des Moines, new businesses are locating in the state, and farmers say they see better times ahead.

But for higher education, the expected

Continued on Page A28

UNIVERSITY OF IOWA

Hunter Rawlings, president of the University of Iowa, taking part in the State Fair: "I hope people see that we are not aloof and we are not above it all."

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■

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Slave drivers!

■

From successive issues of the Kenyon College *Newscope*:

"KENYON SUMMER IN ROME—Don't miss out on this frivolous opportunity for academic credit, fun and enrichment. ..."

"EVERYONE, PLEASE EXCUSE TYPOGRAPHIC ERROR in 12/12 *Newscope* regarding the Kenyon Summer in Rome. It is truly a FABULOUS opportunity rather than frivolous!"

Noted.

■

Notice posted at the U.S. Air Force Academy:

"The topic of Michael Walzer's address for the first Joseph Reich Sr. Lecture in ethics was listed erroneously on the initial invitation. Instead of 'Emerging Ethnics,' Mr. Walzer will be discussing 'EMERGENCY ETHICS.'

"We apologize for the error."

Think nothing of it.

■

News item in the Sioux Falls (S.D.) *Argus Leader*:

"Robert Timm, a former South Dakota resident, has been named the state's new adult literacy coordinator. ...

"As coordinator, Timm will work with the state's 20 local literacy councils and help them raise funds and meet the needs of South Dakota's about 20,000 illiterate adults.

"He will also be responsible for developing training resources and researching and soliciting public grant funds and private funding sources to promote adult illiteracy."

A worthy cause if ever we heard of one.

■

The Diamondback, student newspaper at the University of Maryland at College Park, reports that "ten students from the University's Coppin State College campus are scheduled to visit here Thursday as part of a new strategy to combat black graduate minority enrollment that is well below University goals."

—C.G.

In Brief

Judge Ends Suspensions of 2 Dartmouth Students

A New Hampshire judge last week ordered Dartmouth College to readmit two students who were suspended for 18 months after a confrontation with a black professor. The students are staff members of the Durtmouth *Review*, a conservative weekly newspaper.

The order came in a temporary injunction by Superior Court Judge Bruce Mohl, who is hearing a lawsuit filed by the students against the college. The lawsuit charges that Christopher Baldwin and John Sutter were suspended, along with two others, because college officials disagreed with opinions expressed in the *Review*. The students have filed a similar lawsuit in federal court.

Judge Mohl's order said that one of the eight members of the committee that suspended the students might have been biased against the newspaper. The committee member had earlier signed a letter protesting a *Review* article about female faculty members.

The confrontation with William Cole, a music professor, began when the students asked him for comments about a transcript of one of his classes that the paper was planning to print.

Robert Morris College Closing 1 of 3 Campuses

Robert Morris College will close its Carthage, Ill., campus in July because of declining enrollment and budget deficits.

The 23-year-old Carthage campus, which enrolls 375 students, is one of three campuses of the private, residential junior college. The others are in Chicago and Springfield, Ill.

Richard Pickett, president of the college, said the campus had had difficulty recruiting students because of competition from local community colleges, which charge lower tuition.

He also said the Carthage economy could not support the college's record of placing 97 per cent of its graduates in jobs. "Robert Morris College must prepare for the future by delivering education where we can also deliver jobs," Mr. Pickett said.

The college is seeking to sell the Carthage campus to a buyer who would employ many of the campus's 110 employees, a college spokeswoman said.

Presidential Artifacts Going to Eureka College

President Reagan has been sending boxes of memorabilia to his alma mater, Eureka College, which plans a permanent exhibit honoring its most famous alumnus.

Mr. Reagan has given the college more than 300 books, half of them signed by the authors or other famous figures. Also included in the collection are samples of gifts the President has given to guests, such as Presidential jellybean jars and silver medallions, and gifts that have been given to him, including seven autographed footballs.

The college is raising $3-million for a conference center and auditorium that will include a special room to display the items.

Iona and Elizabeth Seton Contemplate a Merger

Elizabeth Seton College would merge with Iona College under a plan that trustees from the two Roman Catholic institutions are expected to vote on next month.

Elizabeth Seton, a two-year college in Yonkers, N.Y., suggested the consolidation two years ago. Faced with increasing competition from proprietary schools in the area, the college decided to preserve its two-year mission by joining with a larger institution, said Brother John G. Driscoll, Iona's president.

The merger plan calls for the two colleges to become a single institution named Iona College. A school within the college would be named after Elizabeth Seton and would include its two-year programs.

If the colleges' trustees approve it, the consolidation will go before the New York State Board of Regents in mid-February. The new college would include both Iona's 35-acre campus on Long Island and Seton's 21-acre campus on the Hudson River.

Rhode Island Fraternity Suspended for Hazing

A University of Rhode Island fraternity has been suspended for a year and a half after a hazing incident in which pledges reportedly were forced to guzzle beer and sit naked on blocks of ice.

A university spokeswoman said the fraternity had been told to cease all activities. The 50 residents of its house must find alternative housing, she said.

In suspending the fraternity until September 1990, university officials added a year to the penalty recommended by the judicial panel of the university's Interfraternity Council.

The university also put the fraternity on probation for the 1990-91 academic year and ordered alumni of the chapter and representatives of the national fraternity to interview current fraternity members before any of them are allowed to return to the house.

Texas Board Reverses Ban on Contraceptives

The governing board of Southwest Texas State University has reversed an earlier decision to ban the distribution of contraceptives on the campus.

The earlier decision, which prohibited the university's health center from prescribing or distributing contraceptives, had drawn

'Read My Lips' Makes List of Linguistic Undesirables

SAULT STE. MARIE, MICH.

In 1987, Michael Locke submitted the phrase "Read my lips!" to Lake Superior State University for banishment from the English language.

This year, when Mr. Locke resubmitted the phrase, university officials finally agreed with him.

They included George Bush's invitation on their annual "Dishonour List" of words and phrases to be stricken from the language because they're mis-, mal-, or over-used.

Kari Zipf, of Walla Walla, Wash., said "catastrophic health insurance" should be banned. "I sure don't want insurance to make certain that I acquire catastrophic health," she wrote. "I have enough problems as it is."

A Rich Source

The 1988 election was a rich source of questionable "contributions" to the language over and above Mr. Bush's. A "sound bite," one contributor mused, "must refer to the words that a politician will have to eat after the election." Another said that "spin doctors" ought to refer only to nice moves by Julius Erving.

One contributor was bothered by the use of "gourmet" as an adjective. Asked George Drury: "What, or whom, does 'gourmet-flavor' cat food taste like?"

—THOMAS H. MOORE

Students and Faculty Rate Telecourses Favorably, Study Finds

WASHINGTON

Television courses are at least as hard as classroom courses, and often better, according to a study by the Annenberg/Corporation for Public Broadcasting Project.

More than 200 students and 216 faculty members at 150 institutions participated in the survey, which looked at 5 of the 14 television courses financed by the project: "The Write Course," on composition and rhetoric; "The Constitution: That Delicate Balance," a political-science course; "French in Action"; "Economics U$A," and "The New Literacy," an introduction to computers.

Although students generally got lower grades on telecourses—an average 3.04 compared to their grade-point averages of 3.34—they said they would take other telecourses and recommend them to friends.

Use of Experts Cited

They said they had learned more, in part because the telecourses brought in experts with different points of view, and in part because the broadcast format allowed them to record the programs and replay them, stopping, reviewing, and skipping parts as necessary.

On the negative side, students said procrastination was their biggest problem, followed by difficulty in understanding their professors' expectations without regular contact.

The Annenberg/C.P.B. telecourses—produced nationally, often by universities—are typically broadcast over public-television stations at set times. The colleges that offer the courses for credit supply professors who meet with students in person or by phone, check assignments, and grade tests.

Faculty members, too, cited the lack of contact—and their inability to help students who needed more structure—as problems with telecourses.

Nearly 90 per cent of the students taking the television courses were also taking one or more on-campus courses, and more than 75 per cent worked full or part time. They said they had chosen television courses for convenience. More than 80 per cent had video-cassette recorders, and recorded broadcasts to play when they had time to watch—usually viewing two half-hour programs at a sitting.

Faculty members generally gave high marks both to the courses and to the students who took them. Although for the most part the faculty members were assigned to teach the telecourses, most said they would teach them again, and would recommend that their institutions offer such course again.

Studying Still Required

Students said they had spent about the same amount of time—3.4 hours a week—studying for television courses as for on-campus courses.

Faculty members, too, spent the same time on telecourses as on classroom courses, although most of that time was spent responding to students, not preparing lectures.

The 15-year, $150-million Annenberg/C.P.B. Project was started in 1981 to support the use of telecommunications and information technology to enhance the quality and availability of higher education.

—JUDITH AXLER TURNER

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Note Book

While many administrators are seeking alcohol-abuse prevention programs that work, Dordt College students and staff members say they've got their answer: the SUB Club.

On club nights at the Student Union Building, a.k.a. the SUB, guests choose from a menu of 17 mixed drinks and eight ice-cream beverages with names like Tarzan's Revenge, Choco-Mint Twist, and Pilgrim's Progress.

"We do not try to match names to common alcohol drinks," says Scott Sterenburg, a sophomore and the SUB Club's general coordinator. The club serves an average of 500 of the non-alcoholic drinks on each of its special evenings, with 7-Up, among other things, replacing alcohol.

Student volunteers take part in planning, purchasing supplies, setting up the room, and acting as waiters and waitresses for the monthly evenings.

For each event they choose a theme and decorate the room to match. "Sports Night," "Nerd Night," "Roaring 20's," and "Think of Summer"—held in the middle of winter—have been among the themes. Students are invited to dress up accordingly.

By giving students the chance to socialize over mixed, non-alcoholic drinks, the SUB Club attempts to show students they can have fun with their friends without alcohol.

The club, which attracts nearly 25 per cent of Dordt's students to its gatherings, is best at providing an alternative for the non-drinker "who might just want to try a first alcoholic drink for the taste," says Glenda Droogsma, the college's director of personal counseling.

■

Campus Compact: the Project for Public and Community Service is now accepting nominations from its members for its third annual Student Humanitarian Service Award.

Five students will be awarded the $1,500 awards for public service in any field.

More information or an application can be obtained from Campus Compact: the Project for Public and Community Service, Box 1975, Brown University, Providence, R.I. 02912. Applications, which must be submitted by the college and university presidents who make up the Compact's membership, are due February 24.

■

A second edition of "Lovejoy's College Guide for the Learning Disabled" is now out, with a directory of more than 270 colleges and universities, a special-programs section, a sports index, and tips for a successful college experience—including coping skills and advice to parents from university professionals. The book can be purchased by sending a $14.95 check to Lovejoy's College Guide Inc., P.O. Box Q, Red Bank, N.J. 07701.

Students

Survey of Freshmen Finds a Growing Level of Stress Caused by Anxieties About Money and Status

Study reports that fewer first-year students say they are enrolling to gain a general education

LOS ANGELES

Anxieties about money, status, and the college-admissions process appear to have led to growing stress among college freshmen, according to a national survey scheduled to be released this week.

The survey, which has been conducted annually since 1966 and is a widely cited barometer of the changing characteristics of freshmen, indicates "some decline in the overall emotional health of freshmen," said Alexander W. Astin, director of the Higher Education Research Institute at the University of California at Los Angeles and one of the authors of the survey report.

Although still a minority, the proportion of new students who smoke, who feel depressed, and who feel overwhelmed has risen in recent years. In addition, the proportion who consider themselves "above average" in emotional health has slipped.

Concern Over Financial Security

At the same time, more students than ever are worried about their financial security. A growing number say they decided to attend college to earn more money, and fewer say they are enrolling to gain a general education.

The survey's findings also reveal that admission to college is becoming more competitive. Students are applying to more colleges and fewer are attending their first-choice institution.

"Sheer money and status and prestige are more attractive to students than the joy of learning and the meaningfulness of work," said Mr. Astin. "It's not a promising sign."

Although the survey results do not pinpoint the sources of anxiety among students, Mr. Astin believes that the importance students attach to money and prestige is to blame. "The finding on stress is admittedly some conjecture on our part," he said, "but we've noticed these trends in the past, and this is the first year that we've seen the full pattern and made sense of it."

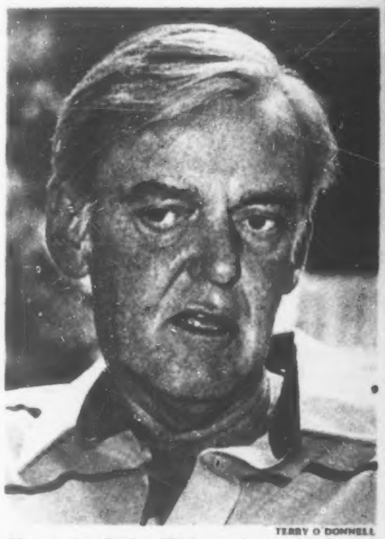
While acknowledging that students' preoccupation with material goods was "simply a reflection of the larger society," Mr. Astin said that, nonetheless, the phenomenon had "tremendous implications" for educators. "We're going to be faced with a decision," he said. "Do we passively watch these trends, or do we encourage students to look at other kinds of values?"

The wide-ranging survey also documents shifts in students' career and educational aspirations and changes in their political beliefs and social attitudes.

An update on one of the survey's most widely reported trends—a steady slide in the proportion of freshmen who believe that "developing a meaningful philosophy of life" is an important goal—is not available this year. Because of technical problems with the latest survey, the responses to that question and some others are not comparable to those of previous surveys. (See accompanying story.)

Business was again the most popular career choice of college freshmen, although the proportion intending a business career slipped to 23.6 per cent from the 1987 record high of 24.6 per cent. Interest in teaching in the elementary or secondary schools continued to climb, reaching 8.8 per cent in 1988.

In the latest survey, a record 58.7 per cent of those polled said they intended to earn advanced degrees, a finding that Mr.



TERRY O'DONNELL

Alexander Astin: "We're going to be faced with a decision. Do we passively watch these trends, or do we encourage students to look at other kinds of values?"

Astin said could suggest that students thought a bachelor's degree was an "inadequate credential" in the job market.

The survey shows that in recent years, the political preferences of freshmen have shifted away from the middle. The proportion holding "middle-of-the-road" views dropped to 53.9 per cent in the latest survey from a peak of 60.3 per cent in 1983. Some 24.3 per cent of those polled this fall said they held "liberal" or "far left" views, while 21.8 per cent had "conservative" or "far right" political preferences.

Although many freshmen describe themselves as moderates, they continue to hold "traditionally liberal" views on many social and political issues. For example, a majority of those polled agreed that abortion should be legal and that busing is an acceptable way to desegregate schools.

AIDS Testing Supported

Freshmen are strong supporters of testing for AIDS and for drug use. In questions asked for the first time, 67.7 agreed that AIDS is best controlled through widespread, mandatory testing, and 71 per cent agreed that employers should be able to require that employees or job applicants be tested for drug use.

The survey shows a decline in the proportion of freshmen receiving federal student aid, and an increase in those who rely on college grants and aid from parents.

The survey covered 222,295 full-time freshmen enrolled at 402 colleges and universities last fall. It was sponsored by the American Council on Education and the Graduate School of Education at U.C.L.A.

Copies of the 174-page report, "The American Freshman: National Norms for Fall 1988" are available for $17 prepaid from the Higher Education Research Institute, Graduate School of Education, 320 Moore Hall, University of California at Los Angeles, Los Angeles 90024-1521.

—JEAN EVANGELAUF

Dramatic Change in a Student Attitude Turns Out to Be Survey-Takers' Mistake

LOS ANGELES

What first appeared to be the most startling news to come out of this year's annual survey of college freshmen turned out to be no news at all. In fact, it turned out to be one big mistake.

What tipped off the survey staff members to their error was an "improbable" gain in the proportion of those who believe that "developing a meaningful philosophy of life" is an important goal.

Over the last 20 years, the proportion believing it is important to develop such a philosophy has dropped fairly steadily. But in the latest survey, it soared 11 points, to 50.5 per cent. Typically, one-year changes are much smaller.

'Frankly, We Goofed'

After conducting an "exhaustive" review, the researchers discovered the surprising source of the anomaly—a change in the question preceding the "philosophy" item on the survey form.

"Frankly, we goofed," admitted Alexander W. Astin, director of the survey project.

In the survey report, Mr. Astin explained the situation this way:

"From 1971 to 1987, the preceding item was 'become involved in programs to clean up the environment.' When this item was dropped in 1988, the preceding question became 'be successful in my own business.' The environment item . . . was considered to be a very important objective by barely one-quarter or less of the freshmen. The business item, on the other hand, was considered very important to 45-50 percent of the freshmen. Apparently, the respondents were predisposed by their response to the environment item when considering their response to the 'philosophy of life' item."

Mr. Astin said the responses to the "philosophy of life" item and the other 19 items included in that section of the survey should not be compared to previous year's findings. —J.E.

FACT FILE: Attitudes and Characteristics of This Year's Freshmen

Age on December 31, 1988:

16 or younger	0.1%
17	2.6%
18	73.3%
19	18.8%
20	1.7%
21-24	1.6%
25-29	0.7%
30-39	0.8%
40-54	0.2%
55 or older	0.0%

Racial/ethnic background:

White	83.2%
Black	9.5%
American Indian	0.8%
Asian-American	2.9%
Mexican-American	1.8%
Puerto Rican-American	1.4%
Other	2.2%

Average grade in high school:

A or A+	11.0%
A–	12.6%
B+	18.5%
B	24.8%
B–	14.2%
C+	11.5%
C	7.0%
D	0.4%

Year of high-school graduation:

1988	93.6%
1987	2.3%
1986	0.7%
1985 or earlier	[illegible]
H.S. equivalency (G.E.D. test)	1.3%
Never completed high school	0.2%

Have met or exceeded recommended years of study, as proposed by the National Commission on Excellence in Education, in:

English (4 years)	94.9%
Mathematics (3 years)	91.5%
Foreign language (2 years)	78.6%
Physical science (2 years)	49.5%
Biological science (2 years)	34.7%
History, American government (1 year)	99.1%
Computer science (.5 years)	58.1%
Art or music (1 year)	66.8%

Number of honors courses taken in high school:

None	50.0%
One	12.3%
Two or more	37.7%

Number of Advanced Placement courses taken in high school:

None	60.8%
One	17.4%
Two or more	21.8%

Racial composition of high school:

Completely white	16.0%
Mostly white	59.1%
Half white	17.5%
Mostly non-white	5.6%
Completely non-white	1.8%

Racial composition of neighborhood:

Completely white	41.2%
Mostly white	42.4%
Half white	6.2%
Mostly non-white	6.2%
Completely non-white	4.1%

Disabilities:

Health-related	1.2%
Hearing	0.8%
Learning	1.2%
Orthopedic	1.0%
Speech	0.3%
Visual	1.9%
Other	1.4%

Current religious preference:

Baptist	13.4%
Buddhist	0.4%
Congregational	1.2%
Eastern Orthodox	0.6%
Episcopal	2.5%
Islamic	0.3%
Jewish	3.2%
Latter Day Saints	0.3%
Lutheran	6.2%
Methodist	8.7%
Presbyterian	4.5%
Quaker	0.2%
Roman Catholic	36.2%
Seventh-Day Adventist	0.3%
Other Protestant	4.8%
None	11.6%
Other	5.5%

Residence planned during fall term:

With parents or relatives	30.4%
Other private home or apartment	6.8%
College dormitory	59.3%
Fraternity or sorority house	0.6%
Other campus housing	2.3%
Other	0.6%

Residence preferred during fall term:

With parents or relatives	14.9%
Other private home or apartment	32.3%
College dormitory	37.6%
Fraternity or sorority house	7.3%
Other campus housing	5.7%
Other	2.1%

Miles from college to home:

5 or less	8.7%
6 to 10	9.4%
11 to 50	26.8%
51 to 100	14.7%
101 to 500	29.3%
500 or more	11.2%

Father's occupation:

Artist (incl. performer)	0.9%
Businessman	29.8%
Member of clergy or religious worker	0.9%
Engineer	8.2%
Farmer or forester	2.9%
Lawyer	1.8%
Military career officer	1.7%
Physician or dentist	2.4%
Other health professional	1.3%
Research scientist	0.6%
Teacher or administrator, college	0.9%
Teacher or administrator, elementary school	0.9%
Teacher or administrator, secondary school	3.9%
Worker, skilled	10.1%
Worker, semi-skilled	4.1%
Worker, unskilled	2.9%
Other occupation	24.2%
Unemployed	2.3%

Father's education (highest level):

Grammar school or less	4.1%
Some high school	7.3%
High-school diploma	26.9%
Postsecondary other than college	4.8%
Some college	14.5%
College degree	21.1%
Some graduate school	2.8%
Graduate degree	18.6%

Mother's occupation:

Artist (incl. performer)	1.6%
Businesswoman	14.2%
Member of clergy or religious worker	0.1%
Clerical worker	11.1%
Engineer	0.2%
Farmer or forester	0.3%
Homemaker (full-time)	18.0%
Lawyer	0.3%
Nurse	7.6%
Physician or dentist	0.4%
Other health professional	1.9%
Research scientist	0.1%
Social, welfare, or recreation worker	1.4%
Teacher or administrator, college	0.4%
Teacher or administrator, elementary school	6.7%
Teacher or administrator, secondary school	4.0%
Worker, skilled	2.1%
Worker, semi-skilled	2.6%
Worker, unskilled	1.8%
Other occupation	19.1%
Unemployed	6.1%

Mother's education (highest level):

Grammar school or less	3.1%
Some high school	6.1%
High-school diploma	34.3%
Postsecondary other than college	8.0%
Some college	16.7%
College degree	19.1%
Some graduate school	3.0%
Graduate degree	9.7%

Students estimate chances are very good that they will:

Change major field	14.4%
Change career choice	13.1%
Fail one or more courses	1.4%
Graduate with honors	11.9%
Be elected to student office	3.4%
Get a job to pay college expenses	35.4%
Work full-time while attending college	3.5%
Join a social fraternity or sorority	18.2%
Play varsity athletics	14.8%
Be elected to an honor society	7.2%
Make at least a B average	41.7%
Need extra time to complete degree	7.1%
Need tutoring in some courses	12.7%
Work at outside job	20.0%
Seek vocational counseling	5.0%
Seek personal counseling	3.8%
Participate in student protests	5.4%
Transfer to another college	12.0%

Students estimate chances are very good that they will: (Continued)

Drop out permanently	0.9%
Drop out temporarily	1.1%
Get bachelor's degree	71.3%
Be satisfied with college	51.3%
Find employment in preferred field	70.7%
Marry while in college	4.4%
Marry within a year after college	15.8%

Student rated self above average or in highest 10 per cent in:

Academic ability	56.1%
Artistic ability	24.7%
Competitiveness	54.2%
Drive to achieve	63.7%
Emotional health	56.1%
Foreign language ability	31.4%
Leadership ability	51.6%
Mathematical ability	40.6%
Physical health	58.4%
Popularity	43.5%
Popularity with opposite sex	41.9%
Public speaking ability	29.5%
Self-confidence (intellectual)	49.7%
Self-confidence (social)	43.8%
Writing ability	39.8%

Number of other colleges applied to for admission this year:

None	31.2%
One	15.0%
Two	16.6%
Three	15.2%
Four	9.2%
Five	5.7%
Six or more	7.0%

Number of other college acceptances this year (of those with multiple applications):

None	15.1%
One	27.9%
Two	24.5%
Three	17.1%
Four	8.4%
Five	3.7%
Six or more	3.4%

College attended is student's:

First choice	67.9%
Second choice	23.0%
Third choice	5.8%
Other	3.3%

Prior credit at this institution:

No	96.5%
Yes	3.5%

Reasons noted as very important in selecting college attended:

Relatives' wishes	7.1%
Teachers' advice	4.1%
Good academic reputation	56.0%
Good social reputation	22.6%
Offered financial assistance	21.4%
Offered special education programs	22.0%
Low tuition	21.3%
Advice of guidance counselor	7.5%
Wanted to live near home	19.2%
Friend's suggestion	8.2%
Recruited by college	3.7%
Recruited by athletic department	4.4%
Graduates get good jobs	33.5%
Not offered aid by first choice	4.6%

Highest degree planned at college attended:

None	3.7%
Vocational certificate	0.8%
Associate (or equivalent)	16.1%
Bachelor's	58.4%
Master's	14.8%
Ph.D. or Ed.D.	2.0%
M.D., D.O., D.D.S., or D.V.M.	1.3%
LL.B. or J.D.	1.1%
B.D. or M.Div.	0.2%
Other	1.6%

Highest degree planned anywhere:

None	1.8%
Vocational certificate	0.6%
Associate (or equivalent)	3.9%
Bachelor's	33.1%
Master's	36.3%
Ph.D. or Ed.D.	11.7%
M.D., D.O., D.D.S., or D.V.M.	5.7%
LL.B. or J.D.	5.0%
B.D. or M.Div.	0.4%
Other	1.5%

Probable major field of study:

Arts and Humanities

Art, fine and applied	2.1%
English	1.3%
History	0.8%
Journalism	1.6%
Language or literature	0.6%
Music	1.0%
Philosophy	0.2%
Speech	0.1%
Theater or drama	0.7%
Theology or religion	0.1%
Other	0.8%

Biological Science

Biology (general)	1.8%
Biochemistry or biophysics	0.5%
Botany	0.0%
Marine science	0.4%
Microbiology or bacteriology	0.2%
Zoology	0.3%
Other	0.5%

Business

Accounting	6.1%
Business administration (general)	7.3%
Finance	2.0%
Marketing	2.9%
Management	4.9%
Secretarial studies	0.8%
Other	1.6%

Education

Business education	0.3%
Elementary education	4.9%
Music or art education	0.3%
Physical education or recreation	1.0%
Secondary education	1.7%
Special education	0.6%
Other	0.5%

Engineering

Aeronautical engineering	1.7%
Civil engineering	0.9%
Chemical engineering	0.6%
Electrical or electronic engineering	2.9%
Industrial engineering	0.3%
Mechanical engineering	1.8%
Other	1.3%

Physical Science

Astronomy	0.1%
Atmospheric science	0.1%
Chemistry	0.6%
Earth science	0.1%
Marine science	0.1%
Mathematics	0.6%
Physics	0.4%
Statistics	0.0%
Other	0.1%

Professional

Architecture, urban planning	1.2%
Home economics	0.4%
Health technology	1.0%
Library science	0.0%
Nursing	2.5%
Pharmacy	1.0%
Pre-dental, pre-medical, pre-veterinary	2.8%
Therapy (physical, occupational, etc.)	2.0%
Other	1.3%

Social Science

Anthropology	0.2%
Economics	0.5%
Ethnic studies	0.0%
Geography	0.0%
Political science	3.2%
Psychology	4.1%
Social work	0.9%
Sociology	0.4%
Women's studies	0.0%
Other	0.2%

Technical

Building trades	0.2%
Data processing, computer programming	1.1%
Drafting or design	0.4%
Electronics	0.2%
Mechanics	0.2%
Other	0.4%

Other Fields

Agriculture	1.2%
Communications	2.9%
Computer science	1.7%
Forestry	0.5%
Law enforcement	1.6%
Military science	0.1%
Other	1.4%
Undecided	6.8%

Probable career occupation:

Accountant or actuary	5.9%
Actor or entertainer	1.0%
Architect or urban planner	1.7%
Artist	1.7%
Business (clerical)	1.0%
Business executive	12.4%
Business proprietor	3.9%
Business salesperson or buyer	1.4%
Clergy (minister or priest)	0.1%
Clergy (other)	0.1%
Clinical psychologist	1.7%
Computer programmer or analyst	2.7%
Conservationist or forester	0.7%
Dentist	0.5%
Dietitian or home economist	0.2%
Educator (college)	0.4%
Educator (elementary)	5.6%
Educator (secondary)	3.2%
Engineer	8.6%
Farmer or rancher	0.5%
Foreign-service worker	1.1%
Homemaker (full-time)	0.1%
Interior decorator	0.5%
Interpreter	0.2%

Career occupation: (Continued)

Journalist or writer	2.5%
Lab technician or hygienist	0.5%
Law-enforcement officer	1.2%
Lawyer or judge	5.4%
Military service	1.1%
Musician	1.1%
Nurse	2.5%
Optometrist	0.3%
Pharmacist	1.1%
Physician	3.7%
Research scientist	1.6%
School counselor	0.3%
School principal	0.0%
Social, welfare, or recreation worker	1.4%
Statistician	0.1%
Therapist	2.3%
Veterinarian	0.9%
Skilled trades	0.7%
Other occupation	6.8%
Undecided	11.5%

Estimated parental income:

Less than $6,000	3.7%
$6,000-$9,999	2.9%
$10,000-$14,999	5.1%
$15,000-$19,999	5.4%
$20,000-$24,999	6.9%
$25,000-$29,999	7.0%
$30,000-$34,999	9.1%
$35,000-$39,999	9.1%
$40,000-$49,999	12.4%
$50,000-$59,999	11.6%
$60,000-$74,999	10.7%
$75,000-$99,999	7.0%
$100,000-$149,999	4.8%
$150,000 or more	4.3%

Concern about financing college:

None	36.7%
Some	49.0%
Major	14.3%

Received any aid from:

Parents, relatives	78.2%
Spouse	1.2%
Savings from summer work	54.4%
Other savings	28.6%
Part-time job on campus	19.4%
Part-time job off campus	23.3%
Full-time job while in college	2.1%
Pell Grant	15.6%
Supplemental Educational Opportunity Grant	3.7%
State scholarship	9.7%
College Work-Study	6.6%
Other college grant	20.0%
Other private grant	9.1%
Other govt. aid (ROTC, GI, etc.)	2.4%
Guaranteed Student Loan	20.1%
National Direct Student Loan	2.4%
Other college loan	5.8%
Other loan	5.4%
Other source	2.8%

Received $1,500 or more from:

Parents, relatives	52.4%
Spouse	0.3%
Savings from summer work	6.7%
Other savings	5.0%
Part-time job on campus	0.8%
Part-time job off campus	1.3%
Full-time job while in college	0.5%
Pell Grant	2.5%
Supplemental Educational Opportunity Grant	0.5%
State scholarship	1.5%
College Work-Study	0.3%
Other college grant	8.2%
Other private grant	2.1%
Other govt. aid (ROTC, GI, etc.)	1.4%
Guaranteed Student Loan	7.3%
National Direct Student Loan	0.5%
Other college loan	2.4%
Other loan	2.6%
Other source	1.1%

Number of hours per week in the last year spent on these activities:

None:

Studying or doing homework	1.4%
Socializing with friends	0.3%
Talking with teachers outside of class	7.7%
Exercising or sports	4.0%
Partying	12.5%
Working	24.9%
Volunteer work	56.8%
Student clubs or groups	30.5%
Watching television	5.0%
Hobbies	9.1%

6 or more hours:

Studying or doing homework	41.9%
Socializing with friends	78.2%
Talking with teachers outside of class	9.0%
Exercising or sports	47.9%
Partying	35.5%
Working	63.2%
Volunteer work	5.1%
Student clubs or groups	14.9%
Watching television	32.4%
Hobbies	27.7%

Continued on Following Page

FACT FILE: Attitudes and Characteristics of This Year's Freshmen, Continued

	All institutions			2-year colleges		4-year colleges				Universities		Predominantly black colleges	
Activities in the past year:	Men	Women	Total	Public	Private	Public	Pvt., non-sectarian	Protestant	Catholic	Public	Private	Public	Private
Used a personal computer *	30.1%	25.1%	27.4%	23.2%	22.1%	28.1%	30.3%	28.4%	26.1%	30.3%	36.2%	26.4%	30.7%
Attended a religious service	78.3%	84.5%	81.7%	79.4%	84.2%	84.0%	79.1%	88.9%	89.3%	79.5%	82.2%	88.2%	[illegible]
Was bored in class	93.3%	93.8%	93.5%	88.5%	93.1%	95.6%	95.4%	95.3%	96.0%	96.6%	96.4%	90.3%	[illegible]
Participated in demonstrations	32.4%	37.4%	35.1%	33.7%	42.8%	38.0%	36.1%	36.0%	36.5%	32.7%	29.6%	48.5%	[illegible]
Won a varsity letter in sports	55.2%	39.2%	46.6%	36.6%	49.0%	51.2%	50.1%	51.9%	53.6%	50.3%	52.1%	44.1%	[illegible]
Didn't complete homework on time	73.0%	65.1%	68.8%	65.8%	73.8%	70.5%	72.1%	70.7%	68.4%	68.6%	68.2%	69.0%	72.3%
Tutored another student	44.7%	45.1%	44.9%	36.5%	29.0%	43.9%	49.6%	47.8%	46.8%	54.3%	62.2%	41.1%	53.9%
Discussed religion *	18.3%	23.1%	20.9%	15.8%	21.4%	20.5%	25.1%	32.7%	24.6%	20.9%	28.7%	25.6%	33.1%
Did extra course work or reading *	9.0%	12.6%	10.9%	9.5%	10.3%	10.5%	12.7%	12.4%	10.8%	11.9%	13.4%	14.9%	18.7%
Copied homework from another student	58.8%	55.6%	57.1%	54.5%	57.3%	59.4%	54.9%	55.3%	60.5%	59.9%	54.5%	53.9%	55.2%
Studied with other students	85.9%	88.5%	87.3%	82.2%	87.6%	88.6%	89.0%	90.1%	89.3%	90.5%	91.0%	86.1%	89.0%
Was a guest in teacher's home	30.1%	30.5%	30.3%	25.5%	34.8%	32.0%	34.5%	38.2%	29.7%	29.6%	34.2%	30.8%	32.3%
Smoked cigarettes *	8.2%	11.8%	10.1%	14.0%	15.3%	8.7%	9.9%	6.0%	8.6%	7.3%	7.0%	4.7%	2.5%
Discussed sex *	35.3%	26.8%	30.7%	27.5%	28.9%	32.9%	33.8%	28.1%	30.4%	32.6%	32.2%	33.4%	38.9%
Cheated on a test in school	38.7%	34.8%	36.6%	35.6%	37.6%	38.5%	34.2%	33.3%	39.5%	38.4%	32.6%	33.5%	38.4%
Drank beer	72.1%	59.5%	65.3%	66.0%	63.9%	63.9%	64.8%	52.2%	71.6%	68.2%	68.9%	36.5%	35.9%
Drank wine or liquor	63.5%	69.4%	66.7%	65.0%	64.8%	66.5%	67.4%	57.3%	72.8%	70.0%	71.5%	39.5%	45.7%
Discussed politics *	22.0%	15.5%	18.5%	12.5%	13.8%	16.6%	25.5%	24.1%	19.9%	22.3%	32.1%	15.5%	24.7%
Stayed up all night	80.9%	81.1%	81.0%	79.2%	82.6%	81.3%	82.4%	80.2%	81.8%	82.5%	81.4%	79.9%	84.8%
Spoke a language other than English at home *	6.7%	7.1%	6.9%	8.0%	6.9%	4.3%	7.7%	4.4%	8.2%	7.5%	10.8%	4.6%	4.1%
Felt overwhelmed *	14.9%	27.2%	21.5%	16.2%	24.2%	22.2%	24.4%	25.7%	23.9%	24.4%	25.2%	20.4%	23.2%
Felt depressed *	7.4%	13.2%	10.5%	10.1%	13.0%	11.1%	10.9%	11.3%	10.8%	10.0%	9.3%	15.3%	13.8%
Discussed sports *	58.8%	29.0%	42.7%	37.8%	43.9%	45.8%	40.5%	45.6%	46.1%	45.3%	44.6%	43.5%	43.5%
Worked in political campaign	8.7%	8.6%	8.7%	5.6%	7.7%	9.0%	10.9%	11.6%	10.1%	9.8%	13.3%	11.9%	16.7%
Reasons noted as very important in deciding to go to college:													
Parents' wishes	18.9%	19.8%	19.4%	18.2%	21.6%	20.3%	19.7%	20.6%	19.8%	19.1%	19.6%	34.4%	32.4%
Could not find job	3.2%	3.3%	3.3%	5.0%	3.4%	3.2%	2.2%	2.4%	2.2%	2.0%	1.5%	8.2%	5.4%
To get away from home	11.6%	10.9%	11.2%	8.1%	12.6%	12.5%	12.4%	12.4%	10.9%	12.9%	12.6%	19.4%	17.8%
To be able to get a better job	82.7%	82.4%	82.5%	86.1%	83.5%	83.7%	76.2%	77.4%	80.6%	81.4%	77.3%	89.7%	90.6%
To gain general education	53.6%	65.6%	60.1%	58.2%	61.3%	56.8%	65.2%	61.9%	62.5%	60.8%	69.3%	76.0%	73.7%
To improve reading and study skills	35.6%	42.7%	39.4%	41.8%	46.7%	39.1%	39.4%	40.6%	41.8%	35.4%	35.1%	71.6%	64.4%
Nothing better to do	3.4%	2.4%	2.9%	3.8%	3.0%	2.7%	2.5%	2.5%	1.9%	2.2%	2.3%	8.0%	4.5%
To become a more cultured person	29.2%	40.7%	35.4%	31.2%	35.6%	32.5%	42.7%	39.8%	40.0%	37.2%	45.7%	54.0%	61.6%
To be able to make more money	76.5%	69.2%	72.6%	77.5%	75.0%	74.3%	63.7%	62.8%	67.9%	71.9%	62.5%	85.5%	84.9%
To learn more about things	69.3%	77.6%	73.8%	72.2%	75.7%	71.7%	77.8%	74.1%	72.7%	75.2%	78.4%	78.7%	80.2%
To prepare for graduate school	46.1%	53.1%	49.9%	46.5%	55.0%	46.4%	50.2%	50.1%	51.5%	54.8%	59.3%	69.1%	74.6%
Political views:													
Far left	2.7%	2.1%	2.3%	2.7%	2.3%	2.3%	2.9%	2.3%	1.6%	1.8%	1.9%	5.5%	4.0%
Liberal	20.5%	23.2%	22.0%	18.5%	19.9%	21.1%	28.0%	22.0%	21.6%	25.0%	25.7%	26.4%	35.4%
Middle of the road	49.5%	57.0%	53.9%	59.7%	57.2%	55.7%	45.8%	47.2%	54.7%	50.5%	44.1%	47.7%	42.1%
Conservative	24.8%	16.2%	20.2%	17.4%	18.9%	19.4%	21.6%	26.6%	20.7%	21.1%	26.5%	17.9%	16.4%
Far right	2.5%	0.9%	1.6%	1.8%	1.7%	1.5%	1.8%	1.9%	1.4%	1.5%	1.7%	2.5%	1.5%
Agree strongly or somewhat that:													
Government isn't protecting the consumer	61.0%	69.1%	65.4%	69.0%	67.3%	65.7%	66.0%	63.9%	64.9%	61.2%	59.5%	75.8%	76.0%
Government isn't promoting disarmament	56.9%	75.2%	66.7%	65.9%	66.6%	66.7%	69.5%	66.6%	69.6%	66.4%	66.1%	74.5%	82.1%
Government isn't controlling pollution	82.3%	85.3%	83.9%	83.6%	82.8%	82.7%	86.3%	84.7%	84.1%	84.0%	86.6%	80.3%	86.0%
Taxes should be raised to reduce the federal deficit	32.0%	24.1%	27.8%	23.6%	22.6%	26.5%	31.6%	28.5%	26.2%	32.9%	34.8%	22.4%	25.1%
There is too much concern for the rights of criminals	72.7%	66.0%	69.1%	71.1%	66.0%	70.1%	65.8%	67.5%	67.3%	68.8%	65.8%	57.3%	62.4%
Military spending should be increased	33.1%	20.5%	26.3%	30.2%	29.7%	27.9%	23.2%	23.7%	21.0%	22.5%	21.5%	30.9%	21.4%
Nuclear disarmament is attainable	59.5%	61.2%	60.4%	59.5%	59.7%	61.1%	61.7%	59.8%	62.3%	61.0%	58.7%	56.6%	59.4%
Abortion should be legal	56.8%	57.2%	57.0%	52.6%	54.2%	56.0%	64.4%	49.4%	46.6%	64.8%	61.5%	57.0%	63.3%
The death penalty should be abolished	19.6%	26.0%	23.0%	21.6%	24.8%	21.7%	27.0%	25.1%	28.4%	21.9%	27.3%	35.8%	36.4%
It is all right for two people who like each other to have sex even if they've known each other for a very short time	65.1%	37.1%	50.0%	51.0%	45.7%	49.4%	52.5%	37.5%	44.0%	53.9%	49.3%	42.0%	42.4%
Women's activities should be confined to the home	32.1%	20.1%	25.6%	30.5%	30.4%	25.5%	23.5%	23.8%	23.4%	21.3%	19.8%	37.3%	29.0%
Couples should live together before marriage	57.3%	46.3%	51.3%	53.1%	48.7%	49.8%	54.1%	37.8%	45.8%	55.0%	50.9%	52.2%	49.1%
Students might appreciate the value of college more if they had to pay a greater share of the costs	56.2%	50.8%	53.3%	51.7%	55.0%	54.5%	54.1%	53.5%	54.1%	53.1%	54.4%	50.5%	51.2%
Marijuana should be legalized	22.8%	16.4%	19.3%	18.0%	20.1%	18.1%	23.5%	15.6%	17.4%	21.6%	21.1%	21.8%	16.3%
Busing to achieve racial balance in schools is all right	52.3%	54.9%	53.7%	54.9%	57.8%	53.8%	55.8%	53.8%	54.7%	50.5%	51.8%	62.3%	64.1%
Homosexual relations should be prohibited	59.7%	39.9%	49.0%	53.9%	57.2%	53.2%	41.3%	50.3%	44.2%	42.7%	36.4%	51.3%	47.1%
Colleges should divest of South African investments	51.4%	42.1%	46.4%	41.7%	39.2%	43.9%	54.3%	47.5%	46.7%	50.8%	57.9%	50.9%	64.9%
The chief benefit of college is that it increases one's earning power	73.9%	64.7%	69.0%	75.4%	71.9%	72.1%	60.4%	61.2%	64.8%	65.9%	55.6%	76.2%	75.5%
Employers should be allowed to require employees or job applicants to take drug tests	69.8%	72.0%	71.0%	72.4%	70.4%	73.3%	67.8%	73.6%	69.4%	68.3%	67.4%	69.8%	73.8%
The best way to control AIDS is through widespread mandatory testing	67.7%	67.7%	67.7%	73.2%	72.6%	70.3%	62.0%	63.4%	66.0%	62.9%	56.8%	72.4%	67.0%
Just because a man thinks that a woman has "led him on" does not entitle him to have sex with her	75.3%	91.0%	83.8%	80.4%	82.3%	84.3%	84.5%	87.4%	84.6%	86.1%	86.6%	79.5%	82.7%
Only volunteers should serve in the armed forces	52.7%	53.9%	53.4%	53.0%	53.5%	54.1%	55.8%	52.0%	51.4%	53.3%	51.6%	58.6%	60.7%
Objectives considered essential or very important: †													
Becoming accomplished in a performing art	9.8%	11.3%	10.6%	8.7%	11.5%	10.4%	13.9%	12.6%	10.2%	10.9%	12.9%	14.3%	12.9%
Becoming an authority in his or her field	73.6%	70.6%	72.0%	69.1%	70.6%	72.7%	72.2%	70.3%	71.2%	75.5%	74.9%	80.2%	83.3%
Obtaining recognition from colleagues	56.9%	53.6%	55.1%	52.0%	51.8%	55.8%	55.8%	50.2%	57.3%	59.4%	58.2%	63.8%	65.0%
Influencing the political structure	19.8%	14.2%	16.8%	13.3%	14.2%	16.1%	20.0%	18.5%	18.6%	18.8%	24.1%	28.7%	30.8%
Influencing social values	32.7%	40.7%	37.0%	32.7%	39.9%	37.4%	40.4%	43.6%	41.5%	37.2%	40.5%	51.5%	55.0%
Raising a family	66.5%	67.3%	67.0%	66.1%	66.6%	66.4%	66.6%	69.6%	70.7%	66.9%	70.2%	61.6%	67.5%
Becoming an expert on finance and commerce	32.0%	20.8%	25.9%	26.3%	25.0%	26.9%	22.9%	23.1%	27.4%	26.3%	26.1%	44.1%	37.7%
Having administrative responsibility	42.9%	37.3%	39.8%	39.6%	38.0%	41.9%	35.8%	35.3%	40.7%	40.8%	40.0%	55.8%	50.2%
Being very well-off financially	77.8%	69.7%	73.4%	76.3%	74.7%	75.0%	68.1%	62.4%	71.6%	74.4%	66.7%	84.9%	88.2%
Helping others who are in difficulty	46.3%	65.0%	56.4%	53.7%	59.5%	56.6%	58.5%	63.4%	60.2%	55.2%	59.0%	65.3%	73.9%
Participating in such organizations as Peace Corps or VISTA	6.3%	8.0%	7.2%	6.1%	8.2%	6.1%	10.1%	8.7%	8.7%	7.4%	9.4%	11.7%	10.5%
Making a contribution to scientific theory	15.6%	8.8%	11.9%	10.8%	8.0%	10.2%	13.4%	10.0%	9.9%	15.8%	14.7%	15.2%	18.7%
Writing original works	12.7%	13.3%	13.0%	10.5%	11.6%	12.0%	16.7%	15.0%	13.5%	14.6%	17.3%	15.6%	15.6%
Creating artistic work	11.9%	13.0%	12.5%	11.3%	18.0%	10.8%	17.7%	11.6%	12.6%	12.8%	13.0%	14.6%	11.1%
Keeping up to date with political affairs	38.2%	29.4%	33.4%	24.3%	26.2%	30.5%	41.8%	38.2%	37.3%	40.3%	52.0%	36.5%	46.3%
Being successful in own business	56.8%	48.2%	52.1%	54.2%	60.6%	51.4%	50.5%	45.9%	52.3%	51.4%	49.5%	70.4%	68.5%
Developing a meaningful philosophy of life	49.4%	51.4%	50.5%	44.4%	50.3%	49.9%	56.6%	54.9%	52.6%	53.1%	59.7%	65.9%	67.3%
Participating in a community-action program	18.8%	24.2%	21.7%	18.0%	23.2%	21.6%	25.6%	25.8%	24.1%	22.1%	27.5%	35.7%	44.2%
Promoting racial understanding	29.8%	34.2%	32.2%	26.4%	31.2%	31.7%	41.1%	37.1%	33.9%	33.4%	40.7%	63.8%	74.1%
Getting married	66.0%	68.4%	67.3%	64.9%	67.5%	67.2%	67.1%	70.1%	72.0%	68.4%	71.6%	56.5%	61.8%

Note: Because of rounding or multiple responses, figures may add to more than 100 per cent.
* Frequently only; all other activities frequently or occasionally
† Comparisons with previous years not recommended due to change in item order

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Minority-group enrollment rose by 8 per cent from 1984 to 1986, a new report says: Page A2.

Scholars of cultural studies, an interdisciplinary field on the threshold of academic success, gathered to define their discipline: Page A4.

In a landmark study, a composer and conductor pays tribute to jazz and its musicians: Page A4.

Not long ago, many people predicted the demise of campus computer centers. Today, academics are clamoring for their help: Page A13.

Many presidents of small private colleges say their institutions are enjoying a renaissance: Page A13.

The heads of 23 black colleges asked President-elect Bush to re-establish a research council on blacks in higher education: Page A20.

The closing of 91 military bases will offer nearby institutions a potential for growth: Page A20.

As the number of older students increases, some colleges are reconsidering the purposes of undergraduate liberal education, adult-education experts say: Page A27.

College radio stations have become the chief outlets for music considered too experimental for commercial radio: Page A27.

Britain's Education Secretary has outlined a plan to reshape higher education along U.S. lines: Page A37.

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Study of Transcripts Finds Little Structure in the Liberal Arts

Review at 30 colleges said to offer hard evidence of 'fragmentation'

By **THOMAS J. DeLOUGHRY**

WASHINGTON

A review of more than 25,000 student transcripts from 30 colleges and universities has revealed unstructured liberal-arts curricula that lack depth and all but ignore mathematics and the natural sciences.

Robert M. Zemsky, the University of Pennsylvania professor who conducted the review, said it provided statistical evidence for the "fragmentation" of the liberal arts. Concern over such fragmentation, based on anecdotal evidence, has been expressed by the Association of American Colleges in its report "Integrity in the College Curriculum," and by Allan Bloom in *The Closing of the American Mind* and E. D. Hirsch in *Cultural Literacy*.

Provides 'Little Solace'

Mr. Zemsky, director of the Institute for Research on Higher Education at Pennsylvania, said the study provided "little solace" for people who think the problems of college curricula have been exaggerated by advocates of curriculum reform. He discussed his findings here at this month's meeting of the Association of American Colleges.

"To the extent that the institutions in our sample are representative of colleges and universities in general, we find the undergraduate curriculum in the liberal arts lacking in sufficient breadth of study, particularly in the natural sciences and mathematics, and lacking in substantial depth," Mr. Zemsky said.

The data for the study were compiled

Continued on Page A32

Reagan's Last Budget Proposes Reductions in Student Aid and Increases for Science

WASHINGTON

President Reagan last week issued his last federal budget proposal, with billions of dollars at stake for student aid and research.

Although college officials immediately started to analyze the budget, many said the key issues for higher education this year would not be clear until President-elect Bush makes his views known on the budget, and until Congress begins to hash over the various alternatives.

The outcome of major battles over whether to raise income taxes, how much to cut Pentagon spending, and the size of the federal deficit could create more money for spending on education and other social programs—or could further constrict the flow of federal dollars.

The President's last budget proposed keeping Education Department spending at its present level, and included a 2-per-cent reduction in funds for student aid.

Some programs, such as Pell Grants, would receive modest increases, and Congress is expected to provide more money for the Education Department than the President proposed.

For science and technology programs, President Reagan proposed more generous increases, particularly for several big-ticket items such as the Superconducting Supercollider. However, both President-elect Bush and Congress are expected to make some cuts and changes in the science budget request.

The budget proposal also renewed a battle over federal aid to teaching hospitals. President Reagan asked for major cuts in Medicare payments to the hospitals, and some key Congressional leaders appear ready to go along.

Stories on Page A21, Fact File on Page A23

Colleges Keep 'Revolving Door' Policies for Professors Who Work in Washington

By **DEBRA E. BLUM**

WASHINGTON

Many of the scholars who are taking posts in the Bush Administration can be reasonably assured that the gates of their home institutions are not swinging shut behind them.

Indeed, many colleges and universities are now welcoming back professors who are returning from jobs under President Reagan.

George P. Shultz, for example, who has been on leave from his job as professor of management and public policy at Stanford University to serve as Secretary of State, is expected to return to the California campus after six years here. In his absence, the university named him to an endowed professorship in international economy at the business school.

"Shultz stayed as active in the university as he could during his time as a Cabinet officer, and now we hope to have him back in full," says James N. Rosse, Stanford's vice-president and provost. Among other things, Mr. Shultz helped organize conferences for the university and served as a commencement speaker.

Meanwhile, Stanford is losing the services of Michael J. Boskin, the professor of economics who will become the chairman of the Council of Economic Advisors in the Bush White House. Mr. Rosse says that Mr. Boskin will be granted at least a two-year leave to serve in his new position.

Concern Over Disruption

To help keep the revolving door between higher education and government service in full swing, most colleges and universities have policies to accommodate faculty members who want to pursue outside appointments and interests but do not want to lose their faculty positions.

While many higher-education officials and professors appreciate the opportunities afforded by such arrangements, others believe they can disrupt the institution.

Leave-of-absence policies allow faculty members to take time off from their teach-

Continued on Page A18

To Head Off Government Intervention, Presidents' Panel Urges NCAA to Make Public Athletes' Graduation Rates

By **DOUGLAS LEDERMAN**

SAN FRANCISCO

The presidents' commission of the National Collegiate Athletic Association, apparently seeking to head off a threat of federal intervention into the association's affairs, said last week it would consider requiring N.C.A.A. members to release the graduation rates of athletes and other students.

Most proposals for significant changes in N.C.A.A. rules were rejected or deferred at last week's annual meeting: Page A33.

The move by the presidents' commission seemed to be prompted by the expected introduction of two bills in Congress next month. The bills would require all colleges and universities to report to the Department of Education the graduation rates of athletes, categorized by sport, race, and sex, and of all other students, categorized by race and sex.

The measures are to be sponsored by Sen. Bill Bradley, Democrat of New Jersey, Rep. Tom McMillen, Democrat of Maryland, and Rep. Ed Towns, Democrat of New York.

Spokesmen for the lawmakers said they would take a look at the commission's action, but expected to introduce their bills in any event.

When the three sponsors introduced identical legislation in June, college and N.C.A.A. officials denounced it. They said the legislation, known as the Student-Athlete Right to Know Act, had the correct objective—helping athletes make a more educated choice about where to play and study—but said the proposed measures would constitute an unwarranted govern-

Continued on Page A34

MARGINALIA

Classified advertisement in Rutgers University's *Targum Sun*:

"WHAT EVERY COLLEGE STUDENT NEEDS: A WRITING COACH.

"What can 'inside out' writing instruction do for the college student? It is one-on-one between lessons and practice. Does that do it for you? What if it is step-by-step or rewards motivation as much as aptitude? How about specific solutions for particular writing problems? Do you have any specific writing problems. Do you have a particular writing problem . . . like a paper you have been putting off? THE WRITING SCHOOL coaches students through college writing requirements. We do not provide specific solutions for thinking problems. The 'what to write' is up to you. We help you with the writing process. If you decide not to use the services of THE WRITING SCHOOL, eighty to ninety percent of your worktime will be dominated by the thinking process. It is the way students are taught to compose. We change that, make it even, divide it fifty-fifty between thinking and writing, and then we coach you through the writing half. Is it legitimate? If they catch you, you tell them that--excuse me--but they have it wrong. You are not the catchee, they are. We support our services with our methods. English teachers 'write coherently', but not often does anyone pay to read their 'coherent writing'. They are limited in writing experience to the action verb in combination with the positive adverb. Once and for all, you want the real thing, writing advice from those who are capable of writing nouns: 'author', 'commentator', 'reporter', 'scriptwriter', 'novelist', 'poet', 'journalist', 'dramatist'. If they accuse you of cheating on a college paper, turn it around. You respond by saying--'No wonder . . . having been taught to write by English instructors who are not capable of a complete sentence.— Of course, it is not true in terms of sentence grammar. However, in terms which relate writing fundamentals (in this case the modified noun and the modified verb) to writing experience, it is! A working link between writing fundamentals and content describes the methods of THE WRITING SCHOOL. If you are interested in 1) support services for college writing projects and / or 2) writing instruction, please explain if full by letter. . . ."

■

From the Northwestern College (Iowa) *Informer*:

"Are you tired of everyone being too busy to give you feedback on your end-of-the-semester speech, paper, or project? Come to the Open House Study Night at the Writing Center. . . . Bring your assingments and enjoy hot cider, coffee, and cookies while you work."

But no assinging when your mouth is full. —C.G.

In Brief

Union Sues Cal. State U. for Breach of Contract

A union of skilled-trades workers has charged in a lawsuit that the California State University system failed to provide union members with a salary increase called for in a collective-bargaining agreement. The increase was to have taken effect January 1.

Local 1268 of the State Employees Trades Council (A.F.L.-C.I.O.) said about 850 carpenters, plumbers, electricians, and other workers employed by the university were entitled on January 1 to receive a 4-per-cent increase in their base wage and up to 12-percent more in certain jobs.

The lawsuit, filed in Sacramento Superior Court, also named Gov. George Deukmejian and other state officials for failing to allocate $1.4-million to implement the wage agreement. The agreement was part of a contract negotiated in March. A hearing on the lawsuit was set for this week.

U. OF SYDNEY TEAM WINS WORLD DEBATING TOURNAMENT

ROBERT MATTHEWS, PRINCETON UNIVERSITY

PRINCETON, N.J.

A team from the University of Sydney won the World Universities Debating Tournament last week with an argument against the proposition "He profits nothing who gains the world and loses his soul."

In the final round, Sydney students Warren Lee (*above, right*) and Andrew Bell (*center*) bested two debaters from the University of Toronto, Justin MacGregor (*left*) and David Conklin. The 116-team tournament was sponsored by Princeton University's American Whig-Cliosophic Society.

Deficit at U. of Bridgeport Leads to Loss of 60 Jobs

Sixty faculty positions at the University of Bridgeport will be eliminated—mostly through attrition—to ease a $10-million deficit officials there expect by summer.

Some of the faculty members are expected to leave on their own accord; others will be offered early-retirement incentives.

The deficit, which has been accumulated over the past four years, is the result, in part, of expected enrollment increases that never materialized. The university, which has 5,600 students, had anticipated about 7,000.

University of Bridgeport administrators say they are working to strengthen recruiting efforts, especially of part-time students.

Trustees Uphold Firing of Tenured Professor

Trustees of Purdue University last week upheld the firing of a tenured chemistry professor who has been accused of harassing colleagues and of insubordination.

Frank K. Fong, a native of China and a faculty member at Purdue since 1968, is the first tenured professor ever to be fired by the university. Purdue President Steven C. Beering dismissed Mr. Fong in November based on eight charges that were outlined by a faculty committee.

Mr. Fong appealed the dismissal to university trustees. In a special meeting last week, the board unanimously supported the findings against Mr. Fong. Among other charges, he is said to have harassed colleagues over several years with letters and phone calls and to have improperly accused Purdue professors and administrators of misconduct.

The dispute began a decade ago when Mr. Fong was denied a grant by the National Science Foundation to research a theory of photosynthesis that he says would have contradicted earlier work.

Mr. Fong, who says he intends to sue the university, claims that Purdue officials supported the foundation, rather than him, out of concern for its other grants.

Enrollment of Minority Groups Up 8 Pct. Over 2 Years

By MICHELE N-K COLLISON

Fueled by growing numbers of Asian and Hispanic students, minority-group enrollment in colleges and universities increased by 8 per cent between 1984 and 1986, according to a report being released by the American Council on Education this week.

Hispanic students led the enrollment increase with a 17-percent jump, from 535,000 students in 1984 to 624,000 in 1986. Asian students followed with a 15-percent gain during the same period, and American Indians posted a more modest gain of 7 per cent. The 1986 figures are the most recent available from the Department of Education.

This year, many institutions that began programs to recruit minority students reported increases in minority enrollment.

Black Enrollment Is Stable

Black-student enrollment remained stable, with a 0.5-per-cent increase between 1984 and 1986. From 1976 to 1986, while total college enrollment grew from 11 million to 12.5 million, black male enrollment fell from 470,00 to 436,000.

Black colleges also increased their enrollment slightly from 213,000 students in 1986 to 217,000 in 1987, according to the report.

Nevertheless, the authors of the report said the overall enrollment trend was encouraging in light of concern over the decline in black enrollment in previous years. But they warned that the proportion of all minority-group students who enrolled in college had declined from 1976 to 1986, despite increasing high-school graduation rates.

The percentage of minority-group students who graduated from high school increased sharply from 1976 to 1986. The percentage of black students completing high school, for instance, increased to 76.4 per cent in 1986 from 67.5 per cent a decade earlier.

Although Hispanic students posted a large enrollment gain, they represented only 5 per cent of the students enrolled in college, the report said. Black students made up 8.6 per cent of all college students in 1986, compared with 9.4 per cent of the college population in 1976.

Black enrollment in graduate schools increased from 1984 to 1986, reversing a downward trend in the previous years. From 1984 to 1986, black graduate enrollment increased by 8 per cent, from 141,00 to 166,000, and Hispanic enrollment increased 44 per cent, from 32,000 in 1984, to 43,000 in 1986.

The number of Asian graduate students increased 16 per cent, from 37,000 in 1984 to 43,000 in 1986. The number of American Indian graduate students remained stable at 5,000.

The report also noted that while minority groups had made gains in employment in higher education since 1975, most such gains were in non-faculty jobs or low-ranking faculty positions.

In 1975, members of minority groups held 8.3 per cent of the full-time faculty positions. A decade later, that number had increased to 10 per cent. Asians were the only group to make significant gains. While there were 9,760 Asian faculty members in 1975, there were 19,100 ten years later.

Copies of the report, "Minorities in Higher Education: Seventh Annual Status Report," are available for $8, prepaid, from the Office of Minority Concerns, American Council on Education, One Dupont Circle, Washington 20036.

2 in Stanford Bias Case Barred from Residences

Two Stanford University freshmen who admitted involvement in a racial incident at a dormitory were barred last week from student residences for two quarters as punishment.

The students, Gus Heldt and Ben Dugan, both of whom are white, had been living at Ujamaa House, a black "theme residence" on the campus. They both admitted coloring the face and drawing thick lips on a flier depicting Beethoven displayed at the house in October, the university said.

Their "insulting caricature" violated anti-bias terms of the residence agreement that all students admitted to campus housing must sign, said Norman Robinson, an associate dean of students.

U. of Montana Plans Aid for Valedictorians

The University of Montana is planning to sell 300 acres of property in Missoula to establish college scholarships for the states' high-school valedictorians and salutatorians.

The property is now used for storage and a primate-research laboratory. University officials say they know of proposals to use the land to expand an adjacent

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last meeting but the first of many to come and that they wanted our input on whatever the government could do to improve education."

An Agenda for the President

The college presidents said they asked President-elect Bush to do the following:

- Re-establish the National Advisory Committee on Black Higher Education and Black Colleges and Universities. The 16-member panel, which produced a series of reports, was established in 1976 but was abolished by President Reagan during his first term in office. The presidents said the panel would give the Bush Administration information it needed on black colleges. "Policy recommendations should be based on hard research and data rather than just on intuition and politics," said Benjamin F. Payton, president of Tuskegee University.
- Extend President Reagan's order that federal agencies attempt to direct more grant and contract money to historically black institutions and establish an office within the White House to administer the effort. Currently, the program is coordinated through the Education Department.
- Put aside a proposal by former Education Secretary William J. Bennett that would strip federal student aid from institutions where large numbers of former students had defaulted on their loans. Many historically black institutions have high default rates. But the college presidents said that colleges were not responsible for collecting the loans and should therefore not be penalized when students do not repay.
- Reverse the shift in federal student aid from grants to loans that has occurred during the Reagan Presidency. The presidents said that students at black colleges must frequently borrow too much to attend college and often cannot repay their loans once they leave.
- Establish new plans to encourage minority students to become teachers. The nation's schoolchildren are increasingly non-white, the presidents noted, but only a small proportion of teachers are members of minority groups.
- Bolster federal programs that aid minority graduate students.
- Increase federal funds to help colleges build and reburbish campus buildings and laboratories.

but Some Suffer

ties from California to Maine have turned military closings to their advantage.

In 1967, Springfield Technical Community College in Massachusetts moved to the Springfield Arsenal, an Army installation built in 1794. The college gained new space and also became home to a military museum that houses prototypes of the historic "Springfield Rifle," which was used by the Army from 1868 to 1893 because it was accurate up to two miles, an exceptional range for a rifle in those days.

241-Acre Site in New Mexico

After the Department of Defense closed Walker Air Force Base in 1965, Eastern New Mexico University at Roswell moved to the 241-acre site. When Fort Walters closed in 1974, the government offered space on the former Army post in Texas to Weatherford College. The college, located about 20 miles east of the post, opened a

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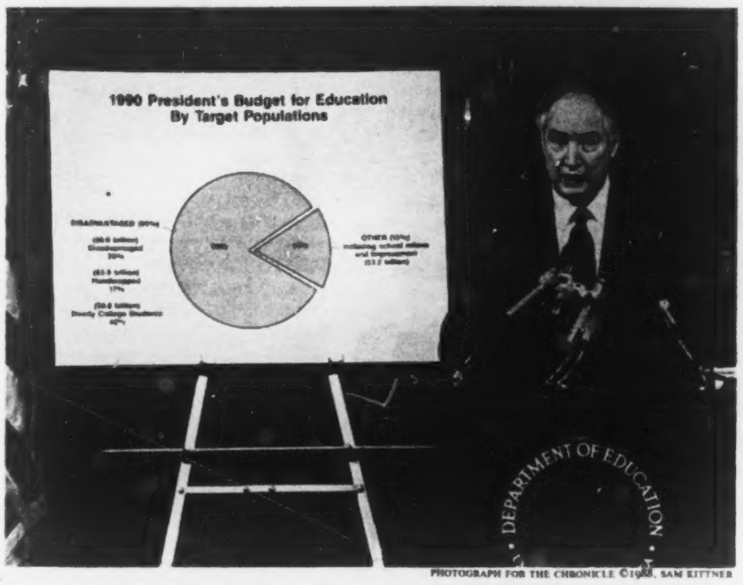
REAGAN'S LAST BUDGET

Freeze in Overall Education Department Spending Is Proposed



PHOTOGRAPH FOR THE CHRONICLE ©19[illegible], SAM KITTNER

Education Secretary Lauro F. Cavazos unveils President Reagan's proposed education budget for fiscal year 1990.

By ROBIN WILSON

WASHINGTON

President Reagan last week proposed a freeze in overall Education Department spending at $21.9-billion for the coming fiscal year.

Some education programs—particularly those that aid minority and disadvantaged students—would receive slightly more money during the 1990 fiscal year. Other programs—such as those that aid graduate students and help colleges refurbish buildings—would be cut back or eliminated altogether under the President's plan.

In either case, Congress is expected to substantially alter the request, which is part of President Reagan's federal budget for fiscal 1990, before the fiscal year begins October 1.

Over all, money for student-aid programs would be reduced by about 2 per cent, to $8.8-billion. Funds for Pell Grants, which go to the neediest students, and Supplemental Educational

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Fate of Federal Funds for Science and Technology Is in Doubt

By COLLEEN CORDES and DAVID L. WHEELER

WASHINGTON

President Reagan's budget proposal for science and technology contained as much money as researchers said they could have hoped for. But some questioned whether the plan made the best use of the nation's science dollars, and many doubted that Congress and President-elect Bush would go along with all of the suggestions.

The President, for example, proposed increases for basic research in the 1990 fiscal year of about 6 per cent, even as he outlined dozens of other controversial steps to shave tens of billions of dollars from the federal deficit—a goal required by law.

The Administration estimated that spending for basic research at universities would go up by about 4 per cent. For all federal spending on research and development, the increase would be about 7 per cent.

"Given the climate, it's a pretty strong budget," said Albert H. Teich, who heads the Office of Public Sector Programs for the American Association for the Advancement of Science.

Bush a Strong Supporter

President-elect Bush has said that he is a strong supporter of science research, and he has publicly endorsed many of the expensive science and technology projects that President Reagan has backed.

But experts on science policy and the budget said that Mr. Bush would be under pressure to find more politically palatable ways to reduce the federal deficit than those identified by Mr. Reagan. (The Reagan budget, for example, would eliminate many programs that Congress has repeatedly rescued in the past.)

Mr. Bush's stated unwillingness to increase income taxes, the experts added, will make the sizable increases Mr. Reagan has proposed for some science and technology initiatives even more vulnerable.

However, if Mr. Bush decides to spend less on defense than Mr. Reagan has proposed, he would have more money available to try to match the increase for science and technology that Mr. Reagan sought.

Different Priorities Possible

Robert M. Rosenzweig, president of the Association of American Universities, predicted that the President-elect might propose at least as much for science and technology, but would try to distribute it differently.

For example, a Congressional aide said Mr. Bush might ask for less for the space station and more for science education.

Still, there are many non-science programs that the Bush Administration may decide to bolster, if it does choose to seek less for the Pentagon.

And any proposals for big increases for science and technology that survive the scrutiny of the new Bush Adminis-

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If Congress Concurs, Teaching Hospitals Could Lose More Than a Billion Dollars

WASHINGTON

The nation's teaching hospitals stand to lose more than a billion dollars if President Reagan's budget proposals are adopted by Congress. Unlike many of the President's other proposed budget cuts, at least part of his agenda for the hospitals stands a good chance of approval this year.

The Reagan Administration has long argued that the country has enough doctors and nurses, and that medical education does not need any federal subsidies. The Administration also has said that teaching hospitals make too much money from Medicare compared to other hospitals.

But this year the Administration has fresh ammunition to push for a $1-billion cut in Medicare payments to teaching hospitals.

A study by the General Accounting Office, released just before President Reagan issued his budget, supported the Administration's contention that the formula used to give teaching hospitals extra money under Medicare is too generous.

The Association of American Medical Colleges, in a statement included in the accounting office's report, rejected its conclusions, saying the study suffered from poor statistical analysis.

But since the study was requested by the chairmen of three powerful Congressional committees—the House Energy and Commerce Committee, the House Ways and Means Committee, and the Senate Committee on Finance—it is expected to carry weight in the Congress and to give the Administration a better chance of achieving the reduction it has sought in the past.

Their Costs Are Higher

The $1-billion the Administration wants to cut would come from Medicare's "indirect medical-education payments," extra money given to teaching hospitals to compensate for their higher costs in caring for patients. Their costs are higher, the teaching hospitals maintain, because they must accept more difficult cases, employ more staff members for each patient, conduct more diagnostic tests, and maintain more detailed records than other hospitals.

Along with the $1-billion cut in the indirect medical-education payments to the teaching hospitals, President Reagan proposed other policies that would

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Freeze Proposed in Education Department Spending

Continued from Preceding Page

Opportunity Grants, which colleges distribute to students as they see fit, would increase by small amounts. Money for College Work-Study would remain at this year's level, and State Student Incentive Grants, which help states aid needy college students, would be eliminated.

The 1990 budget is President Reagan's last before he leaves office this week. The education request differs markedly from the President's proposals of previous years. Until last year, Mr. Reagan sought deep reductions in education spending, but Congress consistently blocked them. Last year, he sought significant increases in many education programs. The 1990 education budget falls somewhere between his earlier plans and last year's request.

Congressional aides said last week that the huge federal deficit would restrict spending on all federal programs next year. But they said lawmakers probably would approve more money for Education Department programs than the President requested, and would pay little attention to the details of Mr. Reagan's budget plan.

Education lobbyists have asked for a large spending increase for next year, and most said last week that President Reagan's budget proposal fell short of their needs.

Praised by Cavazos

Education Secretary Lauro F. Cavazos praised the budget request. He also denied that his support for the budget was inconsistent with statements he made during his Senate confirmation hearings last year in which he pledged to seek increases in federal education spending.

"I think when you look at all the other departments, we came out pretty well," the Secretary said at a news conference where he unveiled the budget plan. "We are making some difficult decisions with all of the budgetary constraints we are facing." Indeed, spending for other federal departments—including Agriculture and Interior—would be cut if President Reagan had his way. Money for the Defense Department and the Energy Department, on the other hand, would be increased.

Education Department officials who requested anonymity said Mr. Cavazos had battled with White House budget officials to keep them from proposing an overall reduction in the Education Department's budget. Mr. Cavazos and his advisers last week declined to talk about the Secretary's negotiations with the White House.

The Secretary also refused to say whether President-elect Bush would propose dramatic changes in the education budget after he takes office this week. Mr. Bush, who has said he wants to be known as the "Education President," has indicated that he would seek increased spending for education programs.

Some of Mr. Bush's aides have said that the President-elect would accept a smaller increase in military spending than Mr. Reagan, freeing up some money for spending on social programs.

Lobbyists Asked for Increase

Education lobbyists, who have consistently criticized President Reagan's budget proposals for education, held a press conference earlier this month to recommend that President-elect Bush request an 11-per-cent increase in education spending. They said such an increase was necessary because federal aid had not kept up with the rise in college tuitions.

Last week, many college officials said President Reagan's proposals would create problems for them and for their students. Robert W. Evans, director of student aid at Pennsylvania State University, said the President's proposal to increase money for Pell Grants, while decreasing money provided for other student-aid programs, was simply a "redistribution" and probably would not mean a net gain for students. He said spending on all grant programs should rise to help "halt what's been a constant movement to having students rely more on loans."

At least one association official, however, was pleased with last week's budget proposal.

Robert H. Atwell, president of the American Council on Education, called Secretary Cavazos to congratulate him on the spending plan. Mr. Atwell said it was the first time he had praised an Education Secretary for the Reagan Administration's budget recommendations.

"In the climate that he's in, he and we ought to feel good," said Mr. Atwell. "There are a lot of areas in the President's budget that are going to get cut."

Because of the federal deficit and a 1986 law that set timetables that Congress must follow to reduce it, lawmakers must slice $40-billion in spending this year or raise taxes. President-elect Bush has said he would not increase taxes.

8-Pct. Increase in Election Year

Last year, Congress approved a relatively hefty 8-per-cent increase in education spending. But that was during an election year, when politicians typically attempt to please their constituents by being more generous in spending for federal programs.

"Congress is going to face a much more difficult struggle in funding anything this year than it did last year," said one Congressional aide.

Under the President's proposal, $4.7-billion would be available for Pell Grants in fiscal 1990. That is a 6-per-cent rise from the amount available this year, and one of the few increases in education programs above the 4-per-cent increase needed to keep spending on federal programs at pace with inflation. It would be enough to provide grants to 46,000 more students than the 3 million who received grants this year.

For the first time, beginning in academic 1989-90, students who enroll in only one or two courses would be able to receive Pell Grants. Now, students must attend college at least half-time to be eligible for grant money.

Congress voted to allow students enrolled in only one or two courses to receive Pell Grants when it revised the Higher Education Act in 1986. But it said then that money had to be appropriated for all full-time students who met the financial-need test before less-than-half-time students could receive funds.

Secretary Cavazos said last week that the department specifically requested enough money so that students who take only one or two courses could be eligible.

Fate of Federal Funds for Science and Technology Programs Is in Doubt

Continued from Preceding Page

tration will be "a lightning rod" for Congress as lawmakers look for ways to spread the pain of shrinking the deficit, warned Robert L. Park, executive director of the Washington office of the American Physical Society and a professor of physics at the University of Maryland.

Washington science lobbyists were already speculating last week, for example, that Mr. Bush would reject the Reagan Administration's idea of spending $250-million in fiscal 1990 on the Superconducting Supercollider.

That would be an increase of about 150 per cent for the effort to build the world's largest particle smasher. Mr. Bush is expected to support considerably less, although enough to keep the project alive.

Increase Requested for NSF

Once again Mr. Reagan asked for a large increase in support for the National Science Foundation—about 14 per cent—so the agency could continue to pursue a doubling of its budget in the next few years. Included in the budget would be about $20-million to support a new competition to establish 8 to 10 new science and technology centers. Such centers have caused controversy in the past, with opponents contending that they drain support from individual researchers.

For the second year in a row, the President sought an increase—about 3.6 per cent—for the National Institutes of Health. That proposal contrasts with earlier attempts by his Administration to find innovative ways to reduce the institutes' budget. The increase for basic research at the N.I.H. would be about 6.6 per cent.

Another Reagan proposal, however, would for the first time limit university researchers who receive N.I.H. grants from earning more than $120,000 in salary from the grants.

Treated as High Priorities

Generally, however, the Reagan budget plan treats science and technology, and high-profile projects in particular, as high priorities. Large amounts of the proposed increases would go to several big-ticket projects, particularly those involving more technology than pure science.

The President, for example, last week proposed huge increases for the Strategic Defense Initiative and the space station. At the National Institutes of Health, the big winners would be research related to AIDS and the project to map the human-genome.

While support for the Superconducting Supercollider would soar, other spending for basic research at the Department of Energy would rise by a much more modest 9 per cent.

The budget for research and the development of products related to the space program would go up by about 35 per cent. The bulk of that increase, however, would go for further work on the space station, for which spending would increase from about $900-million this year to more than $2-billion. The office that supports most academic space science would receive an increase of about 9 per cent.

The agriculture budget also contained mixed news for researchers. The Cooperative State Research Service, which is the main source of federal money for academic agricultural research, would be cut by almost 13 per cent.

But the cuts in agriculture research largely represent the Reagan Administration's opposition to continuing support for specific campus projects for which Congress has earmarked money in the past. The research service's total budget would actually increase slightly, if those specific projects were discounted.

Even though defense spending would increase under President Reagan's budget proposal, military research would be among the science budgets that would actually go down. Both Congress and the Defense Department's own advisory panels have supported increases in spending on the Pentagon's "technology base," the research that fuels technology advances in weapons.

Mr. Reagan proposed cutting the budget for such work by about 5.6 per cent, even as he held fast to his long-time goal of increasing military spending over all. In contrast, the entire Defense Department, under his plan, would get an increase of about 5.3 per cent.

Basic Research Gets a Boost

Budget officials responsible for the Department of Health and Human Services said they had decided to allow small increases for basic research throughout the department, but had limited increases or proposed cuts for most other areas, such as applied research or research administration.

At the National Institutes of Health, department budget officials said they would let the N.I.H. manage the increase in basic research of 6.6 per cent as the institutes wished.

Under the proposed budget, the total number of research grants supported by the institutes would drop by 357 grants, to 19,773 grants in 1990. Officials at the institutes said that, given the budgetary limit, they would prefer to increase the amount of money being given to those who are in the middle of grants already awarded than increase the number of new grants. Traditional Congressional generosity toward the institutes, however, may make that plan unnecessary.

The institutes' budget also includes a $100-million commitment to the human-genome project, which seeks a complete understanding of the genetics behind normal human functioning and inherited disease.

Secretary for Health and Human Services Otis R. Bowen said that the top priority of the department continued to be efforts to combat acquired immune deficiency syndrome. The department's total AIDS budget—for research, education, and prevention—would go up 24 per cent, to $1.6-billion.

The research institutes within the Alcohol, Drug Abuse and Mental Health Administration would also receive a 25-per-cent increase in money for research on AIDS. Some $140-million of the $218-million the mental-health and drug-abuse institutes would receive in AIDS money would be for research on the connection between drug abuse and AIDS.

Other research spending within the Alcohol, Drug Abuse and Mental Health Administration would mirror the pattern at N.I.H. More money would be spent for basic research, resulting in a 9.2-per-cent increase, but other spending would be tightened to result in an increase of only 5.45 per cent for the entire agency.

Along with its budget request, the Reagan Administration released a new report on the federal strategy for research on changes in the global environment. The Administration called for a total increase of 42 per cent for such research, for a total of about $190.5-million.

Teaching Hospitals Could Lose More Than a Billion Dollars

Continued from Preceding Page

strip money from those hospitals and from medical schools:

- His budget would require teaching hospitals to repay the government some money they have been receiving since 1985. Officials at the Health Care Financing Administration say the teaching hospitals have been paid too much for "direct medical-education payments"—which support the salaries of medical residents and related expenses—and they want some of the money back. A regulation to be issued in 1989 will specify how much each hospital should have spent for direct medical education. The regulation will result in money being returned to the government as well as in future budgetary savings, administration officials say. For 1990, the government would save $400-million.
- Direct medical-education payments would be cut by $150-million next year, leaving $1.3-billion for the payments. The cut would have to be achieved by passing legislation to limit those payments in the future to the salaries of residents alone, and to eliminate other costs such as overhead for classroom space.
- Money for education in the health professions allocated by the Health Resources and Services Administration—some $212-million—would be wiped out completely, eliminating a host of programs, including money for scholarships to exceptionally needy medical students and financial aid to nursing students.

Cuts Have Been Tried Before

Lobbyists for medical schools say the proposed cuts in health-professions education have been tried before and have little chance of receiving Congressional approval.

The proposed cuts in funds for nursing education, for instance, came only a month after a commission established by Secretary of Health and Human Services Otis R. Bowen said that the nation is facing a nursing shortage and that increased financial aid is part of the solution.

Lobbyists for teaching hospitals, however, may have to take more seriously the Administration's proposal to reduce payments for indirect costs.

The G.A.O. study, "Medicare: Indirect Medical Education Payments Are Too High," agreed with the teaching hospitals' contention that they face higher expenses than other hospitals. But the G.A.O. said that the formula used to determine those extra expenses was too generous to the teaching hospitals. The reduction G.A.O. suggested in the formula, however, was not quite as severe as the one proposed by the Administration. —DAVID L. WHEELER

FACT FILE: Higher-Education Funds Requested in Fiscal 1990 Budget

In the Department of Education

	Fiscal 1988 actual	Fiscal 1989 estimate	Fiscal 1990 request
Student assistance			
Pell Grants	$4,260,430,000	$4,483,915,000	$4,740,000,000
Supplemental Grants	408,415,000	437,972,000	452,863,000
College Work-Study	588,249,000	610,097,000	610,097,000
Income-contingent loans	4,308,000	4,940,000	20,000,000
State Student Incentive Grants	72,762,000	71,889,000	0
Perkins Loans	210,628,000	205,507,000	22,000,000
Stafford Student Loans	2,565,000,000	3,174,400,000	2,962,533,000
Paul Douglas Teacher Scholarships	14,840,000	15,235,000	0
Graduate support			
Patricia Roberts Harris graduate fellowships	15,304,000	15,711,000	16,245,000
Robert C. Byrd honors scholarships	7,659,000	8,200,000	8,479,000
Jacob K. Javits fellowships	6,702,000	7,904,000	5,770,000
Patricia Roberts Harris public-service fellowships	3,221,000	3,320,000	0
Minority participation graduate fellowships	3,351,000	3,476,000	3,594,000
Areas of National Need fellowships	7,659,000	12,844,000	11,945,000
Institutional assistance			
Developing institutions			
Aid for historically black colleges	73,162,000	84,422,000	87,293,000
Endowment challenge grants	19,148,000	12,696,000	13,128,000
Institutional support	60,060,000	77,459,000	80,093,000
Cooperative education	13,787,000	13,622,000	0
Facilities			
College-housing and academic-facilities loans	62,231,000	31,315,000	5,129,000
Interest-subsidy grants	21,878,000	22,744,000	22,744,000
International education	30,685,000	31,058,000	30,317,000
Law School Clinical Experience	3,830,000	3,952,000	0
Veterans' Education Outreach	2,872,000	2,838,000	0
Bilingual education			
Bilingual vocational training	3,734,000	3,771,000	0
Training grants	35,447,000	30,413,000	30,413,000

	Fiscal 1988 actual	Fiscal 1989 estimate	Fiscal 1990 request
Library resources			
Research libraries	$5,744,000	$5,675,000	$ 0
Training and demonstration	718,000	709,000	0
College-library technology grants	3,590,000	3,651,000	0
Aid to disadvantaged			
College-aid migrant programs	1,340,000	1,482,000	1,482,000
Legal Training for the Disadvantaged	1,915,000	1,892,000	1,956,000
Minority Institutions Science Improvement	5,266,000	5,307,000	5,487,000
Programs for disadvantaged students	205,841,000	219,257,000	228,168,000
Education research and statistics			
Education research	46,573,000	47,079,000	50,960,000
Education statistics	20,953,000	31,122,000	37,370,000
Education for the handicapped			
National Institute on Disability and Rehabilitation Research	51,100,000	52,883,000	52,883,000
Research and development	17,233,000	17,026,000	17,026,000
Personnel development	66,410,000	67,095,000	67,095,000
Rehabilitation training	30,000,000	30,134,000	30,134,000
Postsecondary programs	5,840,000	5,770,000	5,770,000
Miscellaneous			
Adult education	134,036,000	162,210,000	170,000,000
Vocational education grants	804,216,000	831,566,000	949,400,000
Teacher training	131,727,000	151,434,000	155,347,000
Office for Civil Rights	40,530,000	40,845,000	45,178,000
Drug abuse education, prevention for college students	17,800,000	27,800,000	28,700,000
Fund for the Improvement of Postsecondary Education	11,645,000	11,856,000	11,856,000
Student Literacy Corps	—	4,900,000	5,100,000
Women's educational equity	3,351,000	2,949,000	0
School, College, and University Partnerships	2,394,000	2,760,000	2,854,000

In Other Federal Agencies

	Fiscal 1988 actual	Fiscal 1989 estimate	Fiscal 1990 request
Scientific research			
National Institutes of Health			
Cancer Institute	$1,469,327,000	$1,570,866,000	$1,494,741,000
Heart, Lung, and Blood Institute	965,536,000	1,045,670,000	1,039,846,000
Institute of Dental Research	126,297,000	130,724,000	131,527,000
Institute of Diabetes, Digestive, and Kidney Diseases	534,733,000	559,509,000	577,235,000
Institute of Neurological and Communicative Disorders and Stroke	534,692,000	479,982,000	485,597,000
Institute of Allergy and Infectious Diseases	638,800,000	741,577,000	442,596,000
Institute of General Medical Sciences	632,676,000	682,259,000	766,421,000
Institute of Child Health and Human Development	396,811,000	425,468,000	417,064,000
Eye Institute	224,947,000	231,190,000	233,777,000
Institute of Environmental Health Sciences	215,666,000	223,420,000	226,471,000
Institute on Aging	194,746,000	222,639,000	229,620,000
Institute of Arthritis, Musculoskeletal, and Skin Diseases	147,679,000	159,891,000	167,334,000
Research Resources	368,153,000	358,261,000	263,313,000
Center for Nursing Research	23,380,000	29,133,000	29,970,000
Institute of Deafness and Other Communication Disorders	—	86,530,000	91,433,000
International Center	15,651,000	15,810,000	10,622,000
Library of Medicine	67,910,000	73,731,000	78,229,000
Total N.I.H.	6,199,000,000	6,543,000,000	6,777,000,000
AIDS research, education, and prevention	956,000,000	1,269,000,000	1,600,000,000
National Science Foundation			
Program management	84,466,000	90,550,000	104,000,000
Total research	1,453,000,000	1,583,000,000	1,803,022,000
Science and engineering education	139,200,000	171,000,000	190,000,000
Antarctic program	124,800,000	131,000,000	156,800,000
Total National Science Foundation	1,717,000,000	1,885,000,000	2,149,022,000
Department of Agriculture			
Cooperative research			
Hatch Act support	154,640,000	155,545,000	155,545,000
Payments to black colleges	23,333,000	24,333,000	25,333,000
Special research grants	51,780,000	61,406,000	15,791,000
Competitive research grants	42,372,000	39,716,000	63,542,000
Animal-health research	5,476,000	5,476,000	0
Total cooperative research	352,019,000	340,917,000	295,398,000
Extension service	357,963,000	361,370,000	324,840,000
Department of Defense			
Basic research	898,900,000	955,500,000	929,900,000
University Research Initiative	85,000,000	141,000,000	96,000,000
Strategic Defense Initiative			
Research and development	3,900,500,000	3,948,424,000	5,901,603,000
Department of Energy			
General science	355,100,000	922,100,000	1,169,400,000
Superconducting Supercollider	25,000,000	98,600,000	250,000,000
Basic energy sciences	437,200,000	549,300,000	590,000,000
Environmental Protection Agency			
Research and development	188,350,000	202,500,000	235,000,000
National Aeronautics and Space Administration			
Research and development	3,279,900,000	4,241,600,000	5,751,600,000
Space station	489,509,000	887,129,000	1,992,890,000

	Fiscal 1988 actual	Fiscal 1989 estimate	Fiscal 1990 request
Health research and training			
Alcohol, Drug Abuse, and Mental Health Administration Research	$513,000,000	$623,000,000	$657,000,000
Centers for Disease Control			
Occupational safety, health Research and training	69,342,000	70,355,000	44,586,000
Health professions			
Health-professions education			
Exceptional-need scholarships	6,702,000	6,622,000	0
Aid to disadvantaged students	27,406,000	27,077,000	0
Primary-care and family-medicine training	64,415,000	63,642,000	0
Nurse training	54,046,000	55,921,000	0
Total, Health-professions education	208,000,000	212,317,000	0
National Health Service Corps	37,442,000	39,866,000	20,000,000
National Health Service Corps scholarships and loan repayment program	3,944,000	7,906,000	7,906,000
Medical-facilities guarantees and loans	22,000,000	21,600,000	21,000,000
Area health-education centers	17,233,000	17,026,000	0
Arts and humanities			
National Endowment for the Humanities			
Education programs	16,343,000	16,150,000	16,200,000
Fellowship programs	15,345,000	15,560,000	15,400,000
General programs	22,646,000	22,840,000	23,180,000
Research programs	16,556,000	16,400,000	17,000,000
State programs	21,300,000	25,000,000	25,000,000
Office of Preservation	14,500,000	12,330,000	13,500,000
Challenge grants	16,500,000	16,700,000	14,700,000
Treasury matching grants	12,000,000	12,000,000	12,000,000
Total National Endowment for the Humanities	140,435,000	153,000,000	153,250,000
National Endowment for the Arts	167,731,000	169,090,000	170,100,000
Institute of Museum Services	21,944,000	22,270,000	23,350,000
National Archives & Records Administration	116,000,000	121,900,000	122,612,000
Civil rights			
Commission on Civil Rights	5,707,000	5,707,000	7,857,000
Equal Employment Opportunity Commission	179,812,000	180,712,000	188,700,000
Miscellaneous			
Corporation for Public Broadcasting	214,000,000	228,000,000	232,648,000
Veterans' educational benefits	675,989,000	562,789,000	413,386,000
Peace Corps	146,200,000	153,500,000	163,614,000
U.S. Information Agency			
Educational and cultural exchanges	150,040,000	150,040,000	153,000,000
Postal subsidies for non-profit organizations	517,001,000	436,417,000	459,755,000
Small Business Development Centers	39,600,000	45,000,000	0

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A center to collect and analyze data on AIDS would help policymakers determine ways to deal with the disease, a report says: Page A4.

The publication of a biography of Paul Robeson signals renewed interest in the black activist: Page A5.

The nation's colleges are bracing for a faculty shortage that is expected to begin in the 1990's: Page A14.

Bills to create community-service programs for high-school and college students are expected to be introduced in Congress: Page A20.

What's in a name? Plenty, if you're a state college trying to become a university: Page A20.

Governor Bill Clinton has been campaigning across Arkansas for a tax increase to support education and health programs: Page A21.

While most universities control their finances centrally, using surpluses from one division to cover another's losses, some demand of their divisions an unusual degree of self-sufficiency: Page A25.

Regis College sold one of its campuses to a Japanese university that wants to establish an American campus for its students: Page A25.

Many college officials are ignorant about the level of crime on their campuses, a study shows: Page A31.

The new secretary-treasurer of the N.C.A.A. is prepared for people who question whether a woman can fill the third-ranking post: Page A33.

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BUT NO SPECIFIC COMMITMENTS

At Inaugural-Festivity Kickoff, Bush Promises Teachers: 'Education Will Be on My Desk and on My Mind' Daily

EDUCATION: The Future Begins Today

PHOTOGRAPH FOR THE CHRONICLE ©1989, SAM KITTNER

Officials of the new Administration join the audience in applause for George Bush during his inauguration-week address to 250 teachers at the National Museum of Women in the Arts.

By ROBIN WILSON

WASHINGTON

George Bush kicked off the festivities marking his inauguration as the 41st President last week by promising 250 teachers that "education will be on my desk and on my mind right from the start—every day."

The teachers were invited to travel here from across the country to take part in last week's inaugural events.

Mr. Bush stopped short of making specific commitments about what his Administration would do to help improve education.

"I know it's tough in terms of resources, given this budgetary crunch that we're living under," he said. But he added that "there are lots of ways that I can be helpful to you," and said the federal government should "reward excellence, raise standards, publicize success, and strive to resolve shortcomings" in education.

Mr. Bush told the teachers that his speech to them was the first event on his inaugural calendar—"and that's the way I wanted it," he said. He said teaching "should be one of America's most honored professions," and said he was "awed" by the job teachers do.

The next day Mr. Bush spoke to a

Continued on Page A23

Educators and Politicians From 100 Countries Urge Campaign to Make Higher Education More Useful

By ROBERT L. JACOBSON

GENEVA

Educational and political leaders from more than 100 countries, mostly in the third world, called last week for an international campaign to make higher education a more effective tool for economic and social progress.

Their appeal, which was aimed at education ministries throughout the world, came in a document adopted at the end of a nine-day conference here that was sponsored by the International Bureau of Education, a semi-autonomous unit of the Paris-based United Nations Educational, Scientific, and Cultural Organization, and the office of Unesco's director-general.

The officials voiced great concern over the persistence of unemployment in many countries, particularly among university graduates, and over the failure of postsecondary education either to relieve that problem or to help governments take adequate advantage of scientific and technological advances.

"The coherence of the postsecondary system as a whole needs to be improved, particularly insofar as the universities and their relationships with the other institutions providing occupational training are concerned," the document said.

It urged Unesco to consider an "interdisciplinary plan of action" to promote

Continued on Page A37

Bok Takes Colleges to Task for Overemphasis on Money

Most colleges depend too much on "financial expediency" and on seeking funds for science in setting their priorities, Harvard President Derek Bok told the American Council on Education last week: Page A2.

New NCAA Rule on Aid Stirs Emotional Protests; Repeal Seen Possible

By SUSAN OBERLANDER

Less than two weeks after it was adopted by the members of the National Collegiate Athletic Association's Division I, a rule that would bar those institutions from giving financial aid to freshman athletes who fail to meet minimum academic standards seems destined for reconsideration and, possibly, repeal.

In individual, emotional protests that followed the N.C.A.A.'s convention earlier this month, some college coaches and several university presidents argued that the rule went too far in denying aid to financially needy students, including many blacks.

John Thompson, the men's basketball coach at Georgetown University, galvanized public interest in the issue three days

Continued on Page A35

MARGINALIA

From an A.P. dispatch in the Annapolis (Md.) *Capital:*

"The acting president of the University of Maryland-College Park says he hasn't decided whether he would accept the presidency of the University of Minnesota, a position for which he is one of three finalists.

". . . [William E.] Kirwan, in an interview from his Silver Spring home, called Minnesota 'one of the nation's great universities,' with great tradition, a promising future and food finances."

At least he wouldn't starve, a reader writes.

■

Memorandum from the computing people at the University of Chicago:

"Beginning on January 1st, Academic and Public Computing's Pyramid (sphinx) will no longer be available. Current users of sphinx should migrate their accounts and login-ids to tank, the Unix side of the ELXSI. As of the beginning of Fall Quarter, all new instructional and PCA Unix accounts have been established on tank, rather than sphinx. We have also ported most of sphinx's software to tank, and have installed additional programs on tank including mm (mail manager), minitab, and glim.

"A command, ontank, is available which allows a project administrator to have sphinx login-ids transferred to tank. We have also documented a procedure which will allow one to easily move sphinx directories to tank. Ontank and the procedure are more fully documented in msgs 527 and 534. To view these messages, enter the command: msgs 527 or msgs 534. The file migration procedure is also described in the notice program—enter the command notice, and then the command: type tank/01

"We encourage you to begin your migration as soon as possible, so that there will be time for unforeseen problems to be corrected."

Is there somewhere we migrants may register for language classes as soon as we clear customs?

■

From *Writing Newsletter*, a publication at Texas Christian University:

"A total of 196 consultations for its first six weeks in operation indicates that the TCU Writing Center is off to an exceptionally good start—especially when this figure is compared to the totals for more established writing centers at other universities. Duke University's Writing Center, for example, serves 175 students *per semester*, while the TCU Writing Center has already exceeded this total in its first sex weeks."

How could anybody outdo *them?*

■

Headline in *Pitt News:*

UNIVERSITY TRIES TO DEAL WITH FORIEGN T.A. LINGUISTIC PROBLEMS

Next it may want to deal with *Pitt News*.

—C.G.

In Brief

Ex-Head of University Indicted on 42 Counts

Leon Hibbs, the former president of Southeastern Oklahoma State University, has been indicted on 41 charges of mail fraud and one count of conspiracy. The charges stemmed from allegations that he illegally used public and private university funds for his personal benefit.

The indictments, which were returned by a federal grand jury, followed a year-long investigation by Oklahoma and federal officials. The investigation began after a state audit found that more than $2-million from a scholarship foundation had been misused.

Among other things, the indictments charge that Mr. Hibbs, who was president from 1967 to 1987, used money from the foundation to make loans to friends and family members, to provide them with jobs, and to hire an interior designer to decorate his home, said Arlene Joplin, assistant U.S. Attorney in Oklahoma City.

D. C. Thomas, Mr. Hibbs's lawyer, said his client had pleaded not guilty to all the charges. A trial has been scheduled for March.

Roxbury College to Pay U.S. $2.5-Million

Roxbury Community College has agreed to pay a total of $2.5-million to the U.S. Department of Education to avoid being dropped from federal financial-aid programs.

The action came after a team of state auditors found that $2.9-million in federal funds at the college had been unaccounted for in fiscal 1986 and 1987. The settlement was worked out by the Education Department and representatives of the Boston college and of the Massachusetts Board of Regents of Higher Education before a scheduled Washington hearing by an administrative law judge.

The college has been under investigation since 1987, when fiscal irregularities first came to light.

State officials say that many of the problems were the result of sloppy bookkeeping during the presidency of Brunetta Wolfman, who resigned in 1987.

Franklyn Jenifer, the state chancellor of higher education, said the threat of being dropped from federal student-aid programs was particularly serious, because at least 90 per cent of the college's 23,800 students receive financial aid from the government.

The $2.5-million payment to the government must be approved by the state legislature at a time when Massachusetts is facing a $636-million deficit.

Eliminate Racism, New England Board Says

New England will have to improve support services for undergraduate students and identify and eliminate racism on college and university campuses before the number of black and Hispanic students in the region's institutions will increase, according to a report released last week by the New England Board of Higher Education.

The report, "Equity and Pluralism: Full Participation of Blacks and Hispanics in New England Higher Education," was formally endorsed by the board's trustees and the chancellors and commissioners of higher education in the six New England states.

Black and Hispanic students are underrepresented in the region's colleges and universities, said the report, which outlined 20 steps for state and institutional leaders to take to increase minority enrollment.

It said the states should underwrite remedial programs for elementary and high-school students and increase the amount of financial aid available for postsecondary studies.

At the same time, it said, college presidents should evaluate their campuses' racial climates and adopt programs and policies to address any problems they discover.

147 Institutions Adopt New Academic Calendars

New academic calendars have been adopted this year by 147 colleges and universities, the largest number of institutions making such changes in 11 years, according to the American Association of Collegiate Registrars and Admissions Officers.

The "early semester" schedule continued to gain in popularity, as it has in each of the last 19 years. Under that calendar, the fall semester begins in August and ends before Christmas. Some 104 institutions switched to the early semester, which is now in use at 57 per cent of all colleges and universities.

The proportion of colleges using other academic schedules is as follows: quarter, 23 per cent; 4-1-4, 8 per cent; traditional semester, 4 per cent; trimester, 2 per cent; other, 6 per cent.

The figures were compiled by

Priorities of Most Colleges Are 'Determined Too Much by Financial Expediency,' Harvard President Charges

By SCOTT JASCHIK

SAN DIEGO

The priorities of most colleges and universities are "determined too much by financial expediency and academic convention," the president of Harvard University, Derek C. Bok, charged here last week.

Speaking at the annual meeting of the American Council on Education, Mr. Bok took higher-education leaders to task for focusing too much on merely obtaining more money, particularly for science programs, as the way their institutions can best serve the nation. Society's problems today require colleges to devote their funds and attention to academic fields less prestigious than science, he said, giving teacher education, public policy, and social work as examples.

HARVARD UNIVERSITY

Derek C. Bok: As the new Administration takes over, "we must do more than prepare financial demands."

Citing John F. Kennedy's inaugural address, Mr. Bok said, "There is a lot more that we can do for this country."

Mr. Bok said the response of higher education to the country's economic and social needs was particularly important now, because both the United States and the Soviet Union have watched the economies of other nations outpace their own.

Mr. Bok's speech, which was well received here, was in sharp contrast to the dozens of reports that have been issued by higher-education associations and science groups over the past year calling for increased federal support for higher education and science programs.

Shortsighted Approach

While Mr. Bok acknowledged that many programs do need more support and said the reports had been "music to the ears" of many college presidents, he said such an approach was shortsighted. As a new Administration takes over in Washington, he said, "we must do more than prepare financial demands."

"Increased research is not a good way of putting us ahead of other countries," he said, because information about breakthroughs in basic research spreads rapidly throughout the world. He also said that the economic advances in England during the Industrial Revolution and in Japan after World War II had come about because of the social and political structures in those nations, not because they were more adept at research.

In addition, he said, the American economy grew faster prior to World War II, when the United States was not the world research leader, than it did in the years since the war, when the country was a research leader. "Science isn't really the problem," he said.

Rather, he cited the following conditions as hampering economic growth: a failure of U.S. businesses to save money and invest in productivity improvements; laws that over-regulate businesses; a lack of concern among corporate executives about the quality of their products; a poor public education system; and the growth of the underclass.

Mr. Bok said it was "very true" that colleges alone could not solve problems such as poverty, but he said there was much they could do:

- Business schools should change their programs so that studies of abstract models and financial markets are de-emphasized in favor of programs of relevance to most American businesses.
- Colleges and universities should improve their programs in foreign languages and international studies.
- Engineering schools should expand their programs in less-lucrative fields such as industrial engineering and design.
- Programs in public policy and teacher education should be strengthened.
- Research on poverty and ways to reduce illiteracy should become a top priority.

Mr. Bok said that part of the problem with adopting such changes was that they were not attractive to wealthy donors or the federal government. But he said an equally important reason was the mindset in academe.

'History Will Vindicate Us'

Leading colleges and universities allow "a level of mediocrity" in teacher-education programs that they would not tolerate in other fields, he said.

When colleges take steps in the directions he called for, Mr. Bok said, their image suffers. At a press conference after his speech, he cited the example of the Harvard Business School, which he said had "lost ground in academic rankings" because it had started to devote more attention to practical business concerns.

"You get accused of being a trade school, but I believe history will vindicate us," Mr. Bok said.

Asked if Harvard as a whole was guilty of the problems he identified, Mr. Bok said it was, but "less so" than were other institutions.

Mr. Bok said changing the priorities of colleges could not be done by their presidents alone. But he said presidents should take the lead because they are the ones who plan the priorities of higher education with lawmakers, alumni, faculty members, and students.

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UPDATE ON MINORITY GROUPS

Scholarship Program in Washington; Volunteers in Michigan; List of U.S. Engineering Graduates

George Washington University has announced a $7-million scholarship program for District of Columbia public-school students admitted to the university between 1990 and 2000.

Stephen Joel Trachtenberg, the university's president, introduced the "21st Century D.C. Scholars Program" on Martin Luther King Day, saying it was intended primarily to benefit black students. Ninety-one per cent of Washington's public-school students are black.

George Washington expects to finance the education of 50 students during the 10-year period. The university has estimated costs for tuition, room, board, fees, textbooks, and other materials to average about $35,000 a year in the 1990's.

While the program has been established to reward "outstanding high-school seniors," specific criteria for the selection of scholars will be determined by a committee appointed by Mr. Trachtenberg, a university spokeswoman said.

In the fall, the university announced that it would match with scholarships of up to $4,000 any Federal National Mortgage Association Scholarships used by students from Washington's Woodson High School to attend the university. George Washington also sponsors a similar scholarship program with the Washington *Post* for students from the city's Eastern High School.

—THOMAS J. DeLOUGHRY

■

Teams of volunteers are being recruited by the Michigan Department of Education to carry out a new program aimed at helping minority students in junior and senior high schools get on the right academic path to college.

Community leaders and citizens in businesses, churches, and other organizations will be asked to commit two hours a week for one year to the program, called "Achieve a College Education." The state is focusing on 35 school districts that have a high proportion of black, Hispanic, and American Indian students.

By sharing information with parents and students about a college education, said the program's director, Galen R. Anderson, the volunteers will "foster a dream and at the same time let these students know the reality exists—they can go to college."

Volunteers will attend orientation sessions developed by the state, but each community will design its own approach to help minority students select college-preparation classes and obtain financial-aid information.

"We have one volunteer who sees a lot of kids in Little League and shares information as they go through the league," Mr. Anderson said. "We have a Hispanic woman who holds education parties for parents. Some information is shared by pastors with their congregations."

State officials announced the program late last year, but it was first tested in the cities of Benton Harbor and Saginaw.

—DENISE K. MAGNER

■

A new national panel will study ways that states can help minority students succeed in higher education.

The Education Commission of the States this month began organizing the panel after members identified minority students' achievement as one of their top priorities.

About 20 policymakers and educators from across the country are expected to serve on the panel, which will be led by two governors, a Republican and a Democrat.

While the group is expected to focus on such specific problems as helping minority youths make the transition from two-year colleges to four-year institutions, it will set its own agenda, said Joni E. Finney, assistant to the Education Commission's vice-president.

—D.K.M.

■

Determining which university leads the nation's colleges in producing minority engineering graduates depends on how one defines both "nation" and "minority."

If "nation" refers to the 50 states and the District of Columbia, Howard University is first, followed by City College of the City University of New York and Texas A&M University. That's according to 1987 statistics compiled by the American Association of Engineering Societies.

But if "nation" includes the U.S. territories, the University of Puerto Rico ranks first.

About 516 minority students graduated with bachelor's degrees in engineering from the University of Puerto Rico in 1987, compared with Howard's 129 minority engineering graduates, said R. A. Ellis, director of manpower studies at the association. But while the 516 students would be considered minorities within the mainland U.S. population, they would not necessarily be so in Puerto Rico, he said.

"We look just at the states to get a picture of the nation's progress," he said. "But the University of Puerto Rico is clearly a key source of minority engineers."

The following institutions in the 50 states and the District of Columbia led in the production of minority engineering graduates:

Howard U.	129
City College of City U. of New York	116
Texas A&M U.	98
U. of the District of Columbia	90
North Carolina A&T State U.	87
Prairie View A&M U.	87
Georgia Institute of Technology	79
Southern U.	74
New Mexico State U.	67
North Carolina State U.	67
Stanford U.	65
New Jersey Inst. of Technology	63
U. of Texas at Austin	62
U. of New Mexico	61
California State U. at Long Beach	60

—D.K.M.

College Officials Found to Be Ignorant of Crime on Campuses

Continued from Preceding Page

gay or anti-lesbian violence was reported to student-affairs offices; 284 of the respondents said such incidents were not a problem on their campuses.

■ Some 174 incidents of racial violence were reported; 289 of the respondents said such violence was not a problem on their campuses.

A Mirror of the Community

"We are convinced now that we have documented what we came to find," said Ms. Siegel, "and that is that campuses are not free of violence." The importance of the survey, she said, is that it lays to rest the notion that campuses are safe from violent crime.

Instead, she said it showed that colleges and universities mirrored their surrounding communities: Although criminal incidents occur less frequently on college campuses than in the surrounding community, the types of crime perpetrated are similar.

Largely because of widespread news coverage of recent campus crime, students are becoming increasingly aware that colleges are not the safe havens the public once believed them to be. With their parents, they are demanding upgraded safety measures (*The Chronicle*, September 28).

Goaded by students and their families, administrators are taking a great deal of new interest in these issues, trying to affirm their commitment to providing a comfortable learning environment.

The Third National Conference on Campus Violence, coordinated by Ms. Siegel's center, drew about 210 participants to Towson State this month, compared with 125 last year. In March, the center will also hold national workshops on "ethnoviolence" and anti-gay and anti-lesbian violence.

Because many crimes are never reported to police or security, Ms. Siegel said she believed all of the survey's results understated the actual number of incidents, especially those involving members of minority groups and homosexuals.

'It's Licensed in Society'

"Minorities feel as though they'll get along better if they don't make waves," she said. "Homosexual people find it dangerous, for themselves, to say they were picked on.

"It's licensed in society. There is a kind of acceptance of bashing of gay and lesbian people."

More information or a free copy of the survey results can be obtained by calling the center at (301) 321-2178 or by writing the center at Towson State University, Towson, Md. 21204.

—ELIZABETH GREENE

Coming February 22

A SPECIAL
PULL-OUT SUPPLEMENT

Coming Events in Academe

Spring-Summer 1989

You'll want to save this extraordinarily useful compendium of meetings, conferences, seminars, and other noteworthy events in higher education this coming spring and summer. It will feature listings by subject, sponsoring organizations, and dates, with names, addresses, and phone numbers of the people to call upon for detailed information and application forms.

Be sure to reserve advertising space.

To call extra attention to the events you sponsor, you're invited to insert an advertisement in this special section of The Chronicle. Deadline for space reservations and materials: Friday, February 3. Phone our Display Advertising Department today: (202) 466-1080; ask for Lauren Coffman.

Listings in the reference columns of this special supplement are free, but publication of meeting announcements is at the discretion of the editors.

The Chronicle of Higher Education
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New NCAA Rule on Aid Prompts Emotional Protests

Continued from Page A1

after the vote was taken when he protested by walking off the basketball court before a game against Boston College. The coach vowed to continue his protest by boycotting future Georgetown games until he was satisfied that N.C.A.A. members would reconsider their support of the legislation.

In the wake of the debate over the rule, officials from several institutions that voted for it announced that they would change their vote if the issue were introduced at a future convention. Other supporters of the rule said last week that they stood by their original decisions. The proposal passed by just nine votes.

The president of the N.C.A.A., Albert M. Witte, said the legislation would probably be voted on again at the N.C.A.A.'s next convention, in January 1990. Even Harvey Schiller, commissioner of the Southeastern Conference and the rule's chief sponsor, said he believed it should be reconsidered. The rule is not scheduled to take effect until August 1990.

The confusion and discussion about the impact and prospects of Proposition 42, the legislation that sparked the controversy, is not likely to end soon. Leaders of many N.C.A.A. committees, including the executive committee of the association's commission of presidents, said they would debate the rule change at forthcoming meetings.

"We'll discuss it as a conference, and I think it will be discussed all this year," said Eugene F. Corrigan, commissioner of the Atlantic Coast Conference. "By next year's convention, it will probably be the best known and best-understood proposal that's ever been on the floor."

Designed to Close a Loophole

It did not appear to be very well understood at this month's N.C.A.A. meeting.

Supporters of Proposition 42 said the rule was designed to close a loophole in the association's academic standards for freshman athletes, commonly known as Proposition 48.

That rule, which was adopted in 1983 and took effect in 1986, requires incoming freshmen in Divisions I and II to attain a minimum score of 700 on the Scholastic Aptitude Test or 15 on the American College Testing program's standardized test, and a 2.0 grade-point average in 11 high-school core courses, to be eligible to play intercollegiate sports their first year.

The new rule takes that legislation a step farther by prohibiting Division I institutions from giving sports scholarships to freshmen known as "partial qualifiers"—athletes who attain at least a 2.0 grade-point average over all in high school, but fail to attain the minimum standardized-test score or to get a 2.0 in the high-school core curriculum.

Partial qualifiers now may be admitted with sports scholarships, but are barred from playing on varsity teams in their freshman year.

Because another N.C.A.A. rule bars recruited athletes from receiving institutional financial aid other than sports scholarships, the new rule would permit athletes who are ineligible under Proposition 48 to get assistance only through state or federal grants and loans, such as Pell Grants or guaranteed student loans. That is expected to make Division I institutions inaccessible to most partial qualifiers who are poor.

N.C.A.A. officials, who at this time have only sketchy data about the effects of Proposition 48, estimated that there were about 600 partial qualifiers a year at the association's Division I institutions. In men's football and men's basketball, about 90 per cent of the partial qualifiers are black, according to the N.C.A.A.

Rule Seen as an Incentive

Proponents of Proposition 42 said the rule would cause minority students to improve their academic performance in high school. Raising minimum standards, they argued, is the only way to improve performance and be sure that high-school athletes are not allowed to coast through school without studying.

Bill L. Atchley, president of the University of the Pacific, said he favored the new rule—even though he said his institution had mistakenly voted against it—because it would make a college scholarship an incentive for high-school athletes to work harder to improve their grades.

Mr. Atchley also said he did not think it was appropriate for Georgetown's Coach Thompson to criticize the rule publicly.

"He's using his national exposure to influence the N.C.A.A.," Mr. Atchley said. "He may have the influence, but that shows you who's running the N.C.A.A. I think more college presidents need to speak out in favor of this—in favor of higher academic standards."

Some of Proposition 42's supporters also argued that the measure would deter colleges from recruiting athletes who have little or no chance of graduating.

Other proponents of the legislation pointed out that the standards set by Proposition 48 were not terribly high to begin with. The average S.A.T. score by U.S. high-school students is 904.

But Mr. Thompson and John Chaney, men's basketball coach at Temple University, said the rule would unfairly discriminate against blacks because it relied too much on students' scores on standardized tests. Historically, blacks have not scored as high as whites on standardized tests, and one recent study showed that test scores predict that black college athletes will fail far more often than is actually the case.

AP/WIDE WORLD

Just before the start of a game, Georgetown U.'s John Thompson walks off the basketball court in protest of new N.C.A.A. rule.

Other opponents of the new rule—including some officials who favored Proposition 48—said it would deny athletes with disadvantaged backgrounds a chance to try to overcome their deficiencies.

Robert H. Atwell, president of the American Council on Education, said the new rule "is just plain wrong if needy students aren't able to get any kind of institutional aid." He was a strong supporter of Proposition 48 in 1983.

Still other critics argued at the convention that changes should not be made in Proposition 48 until its effects on current athletes were gauged. The N.C.A.A. has initiated a 10-year study of the rule's impact.

College presidents also warned that the N.C.A.A. might have trampled on their institutional autonomy by passing a rule telling them which students they can and cannot provide with institutional financial aid.

Roots in 1983 Debate

The current controversy over the financial-aid legislation has its roots in the 1983 debate over Proposition 48, which went into effect in 1986.

In 1983, presidents of black colleges angrily protested the use of standardized tests as a yardstick of academic success, saying it would unfairly handicap poor students and members of minority groups.

But proponents of the use of test scores argued that using only high-school grades would make it easy for students to have the grades changed so that they could receive a college

Continued on Following Page

How Members of NCAA Division I Voted on Proposal 42

YES (163)

U. of Akron
U. of Alabama
U. of Alabama-Birmingham
American South Athletic Conference
Arizona State U.
U. of Arizona
Atlantic Coast Conference
Auburn U.
Augusta College
Austin Peay State U.
Baptist College
Big Sky Conference
Big South Conference
Bradley U.
Brooklyn College
Bucknell U.
Butler U.
U. of California at Berkeley
Campbell U.
Canisius College
Centenary College
Central Connecticut State U.
U. of Central Florida
Central Michigan U.
U. of Cincinnati
The Citadel
Clemson U.
Coastal Carolina College
Colgate U.
Colonial Athletic Association
Colorado State U.
U. of Colorado
Dartmouth College
Davidson College
U. of Delaware
Drexel U.
Duke U.
Duquesne U.
East Coast Conference
East Tennessee State U.
U. of Evansville
Fairfield U.
Florida A&M U.
Florida International U.
Florida State U.
U. of Florida
Fordham U.
Furman U.
George Mason U.
Georgia Institute of Technology
Georgia Southern College
Georgia State U.
U. of Georgia
Gonzaga U.
Hofstra U.
Howard U.
Illinois State U.
Indiana State U.
Iowa State U.
James Madison U.
Kansas State U.
Kent State U.
U. of Kentucky
Lafayette College
Lehigh U.
Louisiana State U.
Loyola College
Loyola Marymount U.
U. of Maine at Orono
Manhattan College
Marist College
U. of Maryland–Baltimore County
U. of Maryland at College Park
U. of Maryland–Eastern Shore
U. of Massachusetts at Amherst
McNeese State U.
Memphis State U.
Mercer U.
Metro Collegiate Athletic Conference
U. of Miami
Mid-Eastern Athletic Conference
Mississippi State U.
U. of Mississippi
Montana State U.
U. of Montana
Mount Saint Mary's College
U. of New Hampshire
U. of New Mexico
New South Women's Athletic Conference
Niagara U.
U. of North Carolina at Asheville
U. of North Carolina at Chapel Hill
U. of North Carolina at Charlotte
U. of North Carolina at Wilmington
North Carolina State U.
Northeastern U.
U. of Northern Iowa
Northwestern U.
U. of Notre Dame
Ohio U.
Oklahoma State U.
Old Dominion U.
Oral Roberts U.
Oregon State U.
Pennsylvania State U.
U. of Pennsylvania
Pepperdine U.
U. of Portland
Princeton U.
Radford U.
Rice U.
U. of Richmond
Rider College
Saint Louis U.
Saint Mary's College of California
Sam Houston State U.
Samford U.
San Diego State U.
U. of San Diego
U. of San Francisco
San Jose State U.
Santa Clara U.
Siena College
U. of South Alabama
U. of South Florida
Southeastern Conference
U. of Southern California
Southern Conference
Southern Illinois U. at Carbondale
Southern Methodist U.
Southern Utah State College
Southwest Athletic Conference
Stanford U.
Stetson U.
Sun Belt Conference
U. of Texas at Arlington
U. of Texas at Austin
U. of Texas at El Paso
U. of Texas at San Antonio
Texas A&M U.
Texas Christian U.
Texas Tech U.
Towson State U.
Trans America Athletic Conference
Tulane U.
U.S. Air Force Academy
U.S. Military Academy
U.S. Naval Academy
Vanderbilt U.
Virginia Military Institute
Virginia Polytechnic Institute and State U.
U. of Virginia
Wake Forest U.
U. of Washington
West Coast Athletic Conference
West Virginia U.
Western Athletic Conference
Western Carolina U.
Wichita State U.
College of William & Mary
Wright State U.
Yale U.
Youngstown State U.

NO (154)

Alcorn State U.
American U.
Appalachian State U.
Arkansas State U.
U. of Arkansas at Fayetteville
U. of Arkansas at Little Rock
Association of Mid-Continent Universities
Atlantic-10 Conference
Ball State U.
Baylor U.
Big East Conference
Big 10 Conference
Big West Conference
Boise State U.
Boston College
Boston U.
Bowling Green State U.
Brigham Young U.
Brown U.
U. of California at Irvine
U. of California at Los Angeles
U. of California at Santa Barbara
California State U. at Fresno
California State U. at Fullerton
California State U. at Long Beach
Chicago State U.
Columbia U.-Barnard College
U. of Connecticut
Cornell U.
U. of Dayton
DePaul U.
Delaware State College
U. of Detroit
Drake U.
East Carolina U.
Eastern Collegiate Athletic Conference-North
Eastern Illinois U.
Eastern Kentucky U.
Eastern Michigan U.
Eastern Washington U.
Fairleigh Dickinson U. at Teaneck
Gateway Collegiate Athletic Conference
George Washington U.
Georgetown U.
Grambling State U.
U. of Hartford
Harvard U.
U. of Hawaii
High Country Athletic Conference
Holy Cross College
Houston Baptist U.
U. of Houston
Idaho State U.
U. of Idaho
U. of Illinois at Chicago
U. of Illinois at Urbana-Champaign
Indiana U.
Iona College
U. of Iowa
Ivy Group
Jackson State U.
Jacksonville U.
U. of Kansas
La Salle U.
Lamar U.
Liberty U.
Long Island U.-Brooklyn
Louisiana Tech U.
U. of Louisville
Loyola U. (Illinois)
Marquette U.
Marshall U.
Metro Atlantic Athletic Conference
Miami U.
Michigan State U.
U. of Michigan
Mid-American Athletic Conference
Middle Tennessee State U.
Midwestern Collegiate Conference
U. of Minnesota-Twin Cities
Mississippi Valley State U.
Missouri Valley Conference
U. of Missouri at Columbia
Monmouth College (N.J.)
Morehead State U.
Morgan State U.
Murray State U.
U. of Nebraska at Lincoln
U. of Nevada at Las Vegas
U. of Nevada at Reno
New Mexico State U.
U. of New Orleans
Nicholls State U.
North Carolina A&T State U.
North Star Conference
U. of North Texas
Northeast Conference
Northeast Louisiana U.
Northern Arizona U.
Northern Illinois U.
Northwestern State U.
Ohio State U.
Ohio Valley Conference
U. of Oklahoma
U. of Oregon
U. of the Pacific
U. of Pittsburgh
Providence College
Purdue U.
U. of Rhode Island
Robert Morris College
Rutgers U. at New Brunswick
Saint Bonaventure U.
St. Francis College (N.Y.)
Saint Francis College (Pa.)
Saint John's U. (N.Y.)
Saint Joseph's U.
Saint Peter's College
Seton Hall U.
South Carolina State College
U. of South Carolina
U. of Southern Mississippi
Southern U. at Baton Rouge
Southland Conference
Southwest Missouri State U.
Southwest Texas State U.
Southwestern Athletic Conference
U. of Southwestern Louisiana
Stephen F. Austin State U.
Syracuse U.
Temple U.
Tennessee Technological U.
U. of Tennessee at Chattanooga
U. of Tennessee at Knoxville
Texas Southern U.
U. of Toledo
U. of Tulsa
U.S. International U.
Utah State U.
U. of Utah
Valparaiso U.
U. of Vermont
Villanova U.
Virginia Commonwealth U.
Washington State U.
Weber State U.
Western Illinois U.
Western Kentucky U.
Western Michigan U.
Winthrop College
U. of Wisconsin at Green Bay
U. of Wisconsin at Madison
U. of Wyoming
Xavier U. (Ohio)

ABSTAIN (2)

Big Eight Conference
Pacific-10 Conference

New NCAA Rule Prompts Protests

Continued from Preceding Page

scholarship or participate in intercollegiate sports.

As a compromise to soften the impact of the proposed legislation, delegates to the 1983 convention amended Proposition 48 by phasing it in over time and by allowing partial qualifiers to receive sports scholarships, even though they would be ineligible for competition.

The current debate over Proposition 42 was set in motion in 1986, when the University of Georgia was hit with a scandal.

One of its instructors, Jan Kemp, was fired after she charged that Georgia was providing special treatment for athletes in its remedial-studies program. She sued the university and won a large settlement and reinstatement to the faculty.

After losing the lawsuit, Georgia's president at the time, Fred C. Davison, announced that the university would no longer admit athletes who did not qualify under Proposition 48.

Fearing that the new rule would put the university at a competitive disadvantage, officials of the university sought to persuade other institutions in the Southeastern Conference to adopt a similar standard. Two years later, in June 1988, the presidents of Southeastern Conference institutions voted 9 to 1 to stop granting scholarships to partial qualifiers by 1993.

Conference Lobbied Hard

After adopting its own self-imposed ban on giving financial assistance to partial qualifiers, the Southeastern Conference proposed N.C.A.A. legislation that would do the same at all institutions in Division I, and the conference's 10 institutions have lobbied hard in favor of the change in recent months.

Delegates from the conference did some of their more intense backroom lobbying the night after N.C.A.A. delegates initially voted to reject Proposition 42, said the Atlantic Coast Conference's Mr. Corrigan and other targets of that lobbying.

The following day, the delegates voted to reconsider Proposition 42, and passed it.

Mr. Witte said that most members of the N.C.A.A. who voted in favor of the rule seemed to be holding to the philosophy of the "level playing field," in which no institutions should have a competitive advantage over other institutions because they were giving scholarships to partial qualifiers. The vast majority of N.C.A.A. rules are passed for that reason.

Two members of the Atlantic Coast Conference switched their No votes to Yes during the association's second vote. They were swayed by the revelation that the Division I members of the N.C.A.A.'s presidents' commission had not been fully opposed to Proposition 42, as had been suggested during the initial debate, Mr. Corrigan said. The members of the commission had not taken a vote on the matter, but the majority of its members were opposed to altering Proposition 48, according to N.C.A.A. officials.

'Level Playing Field' Sought

"That released some of our people," said Mr. Corrigan. "Our people thought, if the presidents' commission didn't vote on it, and they're not sure about it, we might as well do what makes the playing field more level for us. It became a very practical issue, like a lot of these decisions are, to try to get everybody to play by the same rules. Our schools voted the way they operate their programs."

Most of the A.C.C.'s institutions do not admit athletes who fail to qualify under Proposition 48.

Since the rule is not scheduled to take effect until the middle of next year, it could be reversed without having affected any athletes.

N.C.A.A. officials said that many presidents of Division I institutions were not in favor of altering Proposition 48 until the N.C.A.A. completes its 10-year research project on the effects of Proposition 48. Initial findings from the study will be presented to the N.C.A.A.'s research committee beginning next month, and the committee will decide whether to release the findings to the public.

Woman Aims to Dispel Doubts She Can Handle NCAA Issues

Continued from Page A33

tive and is able to put the association above all else."

Adds Eugene F. Corrigan, commissioner of the Atlantic Coast Conference, who also has worked with Ms. Sweet on association-wide committees: "I think everybody feels comfortable with Judy. She's been a member of top committees, and she's held her own. She didn't just float in from out of nowhere."

Ms. Sweet, who was recommended for the secretary-treasurer position by the N.C.A.A.'s nominating committee and elected by the membership at the association's annual meeting here, has spent almost her entire professional career at California–San Diego, where she has been athletics director since 1975.

"Those of us involved in Division III athletics have made a conscious decision that it's right for us," she says.

She says Division III "epitomizes the balance between academics and athletics," and proudly recites the academic achievements of the members of the university's women's volleyball team, which won the Division III national championship this fall.

"It's exciting to be part of that environment," she says, and adds quickly: "As I'm sure it's exciting to be part of a Division I program, too. They both have their own attractions, and their own challenges."

Ms. Sweet acknowledges that the differences between Divisions I, II, and III are great, but she believes they have much in common, including problems like money.

"There are financial problems in every college athletic program, but what differs is the way schools cut back in each division," she says. "In Division I, they sometimes cut sports; in Division III, we cut back on the number of road trips, or we wear our uniforms a year longer."

Ways to Bridge the Gap

Ms. Sweet believes she can bridge the gap between the divisions by being a consensus-builder.

"I think you have to be a good listener," she says. "You need to try to understand all viewpoints, which doesn't necessarily mean you have to agree, or compromise. It does mean being able to communicate to those whose goals haven't been met that there's a reason, and giving ideas about what action they can take to improve their situations.

"The secret to consensus is communication, and that's what we're getting better at in the N.C.A.A."

Ms. Sweet also sees signs of positive change in the N.C.A.A. in the fact that she is in this position at all. "I never thought there would be that possibility," she says. "The nominating committee was brave enough to do something that hadn't been done before. That it was me who benefited is just timing."

Does she think the association is willing to take the next step, by electing its first female president?

"It's far too premature for me to think about that," she says. "Right now, I just want to be an effective secretary-treasurer."

Fall Sports Champions, 1988

Canadian Interuniversity Athletic Union

Cross-country, men's	U. of Manitoba
Cross-country, women's	U. of Western Ontario
Field hockey	U. of Toronto
Football	U. of Calgary
Soccer, men's	U. of Toronto
Soccer, women's	Queen's U. at Kingston

National Association of Intercollegiate Athletics

Cross-country, men's	Adams State College
Cross-country, women's	Pacific Lutheran University
Football	Division I: Carson-Newman College Division II: Westminster College (Pa.)
Soccer, men's	Sangamon State U.
Soccer, women's	Pacific Lutheran University
Volleyball, women's	U. of Hawaii at Hilo

National Junior College Athletic Association

Cross-country, men's	Central Arizona College
Cross-country, women's	Ricks College
Field hockey	Champlain College
Football	Glendale Community College
Soccer, men's	Mercer County Community College
Soccer, women's	Saint Louis Community College at Florissant Valley
Volleyball, women's	Schoolcraft College

National Collegiate Athletic Association

Cross-country, men's	Division I: U. of Wisconsin at Madison Division II: Edinboro U. of Pennsylvania and Mankato State U. Division III: U. of Wisconsin at Oshkosh
Cross-country, women's	Division I: U. of Kentucky Division II: California Polytechnic State U. at San Luis Obispo Division III: U. of Wisconsin at Oshkosh
Field Hockey	Division I: Old Dominion U. Division III: Trenton State College
Football	Division I-AA: Furman U. Division II: North Dakota State U. Division III: Ithaca College
Soccer, men's	Division I: Indiana U. Division II: Florida Institute of Technology Division III: U. of California at San Diego
Soccer, women's	Division I: U. of North Carolina at Chapel Hill Division II: California State U. at Hayward Division III: William Smith College
Volleyball, women's	Division I: U. of Texas at Austin Division II: Portland State U. Division III: U. of California at San Diego
Water polo, men's	U. of California at Berkeley

People in Athletics

Pokey Allen, football coach and interim director of athletics at Portland State U., will relinquish his duties as athletics director.

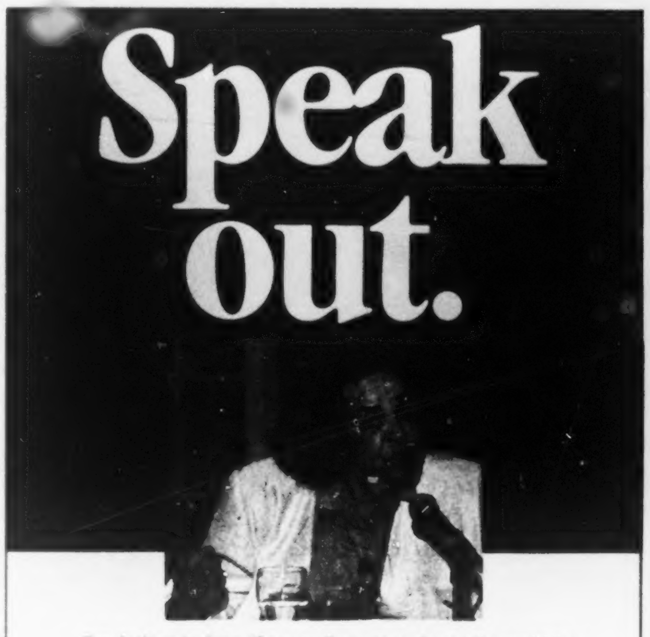
Roger A. Fessler, associate director of athletics at California State U. at Bakersfield, to athletics director at Saint Francis College (Pa.).

Gary W. Hall, men's soccer coach at Campbell College, to director of athletics, chairman of the physical-education department, and men's soccer coach at Atlantic Christian College, effective June 1.

John H. Harvey, former director of athletics and physical fitness and recreation at Saint Mary's College of Maryland, to director of athletics and physical education at Carnegie Mellon U.

Roy Love, men's golf coach and former athletics director at Portland State U., to assistant to the president for athletics.

Mark Tobin, director of athletics at Atlantic Christian College, has announced his resignation, effective June 1.



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News Summary

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The Soviet Academy of Sciences, hoping to strengthen ties with U.S. researchers, has elected 16 Americans to its ranks: Page A4.

Alverno College is considered a pioneer in the field of assessing student learning and institutional effectiveness: Page A10.

Universities finally realize they need to examine their own moral responsibilities, some observers of higher education think: Page A11.

Many college officials believe President Bush is sincere about helping their institutions, but are unsure how they will be treated: Page A15.

Gov. Gerald L. Baliles of Virginia is regarded as a unique politician when it comes to thoughtful discussion of higher education: Page A15.

Two years after Stanford U. began its drive to raise $1.1-billion, fund-raisers are asking, Which university will be next?: Page A25.

The proportion of colleges that have increased general-education requirements for undergraduates has grown little in five years, according to a new survey: Page A27.

After 38 years of coaching college basketball, Ralph Miller says the players are better but the game's the same: Page A29.

Mexico's president has asked a commission to organize a national debate on ways to improve the country's education system: Page A33.

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Many States Seek Tougher Regulation of for-Profit Schools

Crackdowns spurred by reports of inadequate monitoring

By ROBIN WILSON

State legislators are cracking down on for-profit trade schools, prompted by a rash of reports that such institutions are taking money from needy students and failing to provide good job training.

Officials in five states with large numbers of trade schools either have recently toughened state laws regulating proprietary schools or are considering ways to do so. The officials report that similar action is taking place in other states across the country.

The actions follow growing criticism from state investigators and lawyers representing trade-school students, who say that state supervision of the schools has been woefully inadequate.

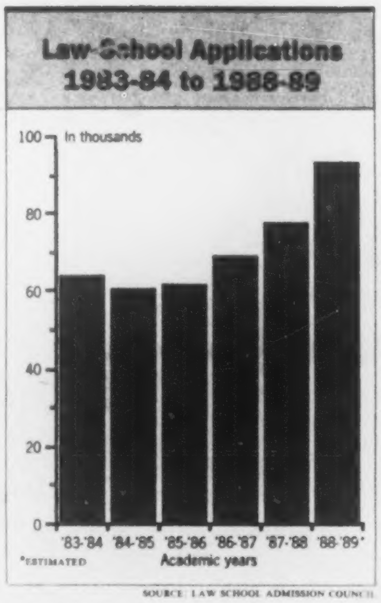
Investigators' Complaints

Investigators complain that some schools enroll students who are not qualified to be admitted in the first place. Many of the students drop out, saddled with large debts on government loans that they cannot repay. The trade schools offer training for jobs ranging from truck driver to computer technician to medical assistant to cosmetologist.

Observers say that a variety of problems hamper states' efforts to monitor such schools:

- Most of the state boards and agencies that oversee trade schools—also known as proprietary schools—don't have enough investigators, so complaints about the schools frequently go unanswered. In addition, most of the state employees charged with monitoring the schools are educators who lack the auditing and legal expertise needed to weed out fraud.
- Many of the members of special state boards that have been established to license and regulate proprietary schools are

Continued on Page A18



SOURCE: LAW SCHOOL ADMISSION COUNCIL

Law schools expect applications to set a record this year: Page A27.

Top Afghan University Is Seen Moving Away From Communist Party

By STEVE LE VINE

KABUL, AFGHANISTAN

As this war-ravaged country nervously awaits the completion of the Soviet Union's scheduled troop withdrawal in mid-February, Afghanistan's main institution of higher education, Kabul University, is moving away from Communist control.

In recent weeks, the 13-college university appointed four new deans from outside the Communist Party. In all, nine non-Communist deans have been appointed since 1986, when Afghanistan's President Mohammed Najibullah came to power and began, with Soviet prodding, to enact relatively liberal reforms.

Three months ago, Mohammed Naim Ashrafi, a non-Communist economics professor who studied in West Germany, was

Continued on Page A35

Colleges Received About $289-Million in Earmarked Funds

Projects approved by Congress criticized as 'pork-barrel science'

By COLLEEN CORDES

WASHINGTON

The 100th Congress directed federal agencies to give at least $289-million to specific projects at colleges and universities this year, benefiting about 90 institutions.

That's just short of the comparable figure for last year, at least $291-million, which was thought to be a record.

Despite the relatively steady support for such projects, college lobbyists and Congressional aides say they are uncertain about the future of the practice of earmarking funds, which critics deride as "pork-barrel science."

Both proponents and critics of the practice are changing their tactics. At the same time, some key Congressional leaders, strengthened by their colleagues' concern about the federal deficit, continue to try to clamp down on such spending.

Paul E. Sweet, director of federal-governmental relations for the University of California system and an opponent of earmarking, said: "My own impression is that it will probably continue as it has in the past—a few big victories, and a lot of little defeats."

Those who support earmarking agree, although they would describe victories and defeats the other way around.

The legislative seesaw is not surprising. On one hand, Congress as an institution is under increasing pressure to resist special requests in all areas so that it can reduce the federal deficit. On the other, individual lawmakers are pressed by universities and

Continued on Page A20

A partial list of campus projects backed by Congress even though federal agencies did not request money for them: Page A20.

U.S. Mathematics Education Inadequate and in Need of Overhaul, Report Charges

By JUDITH AXLER TURNER

WASHINGTON

American students are not receiving the high-quality education in mathematics that is "crucial" for science, technology, and the economy of the nation, the National Research Council reported last week.

"Three of every four Americans stop studying mathematics before completing career or job prerequisites," the council said in a 114-page report, *Everybody Counts: A Report to the Nation on the Future of Mathematics Education.*

The 70 people on the panel that produced the report—including college and university faculty members and administrators, research mathematicians and statisticians, and scientists and engineers—came from three committees of the National Academy of Sciences that deal with mathematics.

A large part of the problem, the report said, is the style and content of mathematics instruction, from kindergarten through Ph.D. programs. "Today's schools labor under the legacy of a structure designed for the industrial age misapplied to educate children for the information age."

Although the problem exists at all levels, the solution must start in the colleges and universities that train mathematics teachers, the report said.

"Since teachers teach much as they were taught, university courses for prospective teachers must exemplify the highest standards for instruction. However, most mathematics that teachers have studied has been presented only in the authoritarian framework of Moses coming down from Mount Sinai," it added.

Anthony Ralston, a professor of computer science and mathematics at the State University of New York at Buffalo and a member of the panel, said that most new teachers had never seen mathematics

Continued on Page A28

Approval of Gene Transfers Prompts Fresh Debate

Federal approval of an experiment involving the transfer of foreign genes into humans has sparked renewed controversy: Page A4.

In Brief

Black Cadet Settles Lawsuit Over Hazing at the Citadel

A black former cadet at the Citadel has agreed to settle an $880,000 lawsuit that he brought against five white cadets who allegedly hazed him. The terms of the settlement were not revealed.

Following the October 1986 incident, Kevin Nesmith charged the five white cadets with trespassing, violating his civil rights, and intentionally inflicting emotional distress. He said they had entered his room at the military college wearing sheets and towels, uttered obscenities, and left behind a charred paper cross.

In December, a federal judge dismissed a lawsuit brought by Mr. Nesmith against the Citadel. The judge said the college was not responsible for the incident because it had never condoned hazing.

League Cites 'Assault' on Education, Welfare

Participation by blacks in higher education declined during Ronald Reagan's Presidency because of an "active assault on education funding, affirmative action, and social welfare programs," according to a report released last week by the National Urban League.

The report, which includes studies of other social and economic problems that affect blacks, calls for a renewed commitment to increase black participation in higher education.

"With a new administration assuming office, there is the possibility of, if not totally reversing, at least halting the decline of black participation in American society," the authors of the report say.

The report, "The State of Black America 1989," is available for $19, plus $1.50 for postage and handling, from the National Urban League, 500 East 62nd Street, New York 10021.

MARGINALIA

Thou Shalt Not . . .

Although fund raisers at the University of Richmond pride themselves on the quality of their research, their computers never told them about the donor of one of the largest gifts they ever received: Robert S. Jepson, Jr., Class of '64.

In fact, when a university trustee noticed a private jet with the name "Bob Jepson" on it at Chicago's O'Hare Airport and wanted to know if it was the same Jepson who was ahead of him in college, the university's fund raisers didn't even know his address.

Their investigation into Mr. Jepson's background—the part of college fund raising that is known as "prospect research"—told them, however, that Mr. Jepson had a pretty nice home—several, actually. . . .

The university's fund raisers eventually found that Mr. Jepson had made more than $300-million in the preceding six years—a result of a series of corporate mergers and acquisitions.

Once Richmond's fund raisers learned from faculty members that Mr. Jepson revered the former dean of the university's business school, W. David Robbins, they knew exactly what to do. "We immediately invited him to lunch," says H. Gerald Quigg, Richmond's vice-president for university relations.

Before long, Mr. Jepson was attending a special luncheon to honor Mr. Robbins. Over dessert, the university's president asked Mr. Jepson if he would like to join the university's founder's club, a privilege that accompanies a $10,000 gift. "That's done," Mr. Jepson replied. "Now what else can I do?"

It wasn't hard for university officials to come up with a few suggestions.

Two weeks later, Mr. Jepson and his wife, Alice, gave $1-million—in cash—to create a professorship in Mr. Robbins's name. . . .

—From The Chronicle, June 22, 1988

ALTHOUGH FUNDRAISERS AT THE UNIVERSITY OF RICHMOND PRIDE THEMSELVES ON THE QUALITY OF THEIR RESEARCH, their computers never told them about the donor of one of the largest gifts they received, Robert S. Jepson Jr., Class of '64. In fact, when a university trustee noticed a private jet with the name "Bob Jepson" on it at Chicago's O'Hare Airport and wanted to know if it was the same Jepson who was ahead of him in college, the university's fundraisers didn't even know his address. Their investigation into Mr. Jepson, known as "prospect research," told them, however, that Mr. Jepson had a pretty nice home—several, actually. The university's fundraisers eventually found that Mr. Jepson had made more than $300 million in the preceding six years—a result of a series of corporate mergers and acquisitions. Once Richmond's fundraisers learned from faculty members that Mr. Jepson revered the former dean of the university's business school, W. David Robbins, they knew exactly what to do. "We immediately invited him to lunch," says H. Gerald Quigg, Richmond's vice president for university relations. Before long, Mr. Jepson was attending a special luncheon to honor Mr. Robbins. Over dessert, the university's president asked Mr. Jepson if he would like to join the university's founder's club, a privilege that accompanies a $10,000 gift. "That's done," Mr. Jepson replied. "Now what else can I do?" It wasn't hard for university officials to come up with a few suggestions. Two weeks later, Mr. Jepson and his wife, Alice, gave $1 million in cash to create a professorship in Mr. Robbin's [*sic*] name.

—From College Marketing Alert (a $275-a-year newsletter), January 10, 1989

What They're Reading on College Campuses

		Previous Survey
1.	The Essential Calvin and Hobbes, by Bill Watterson	2
2.	The Bonfire of the Vanities, by Tom Wolfe	8
3.	The Tommyknockers, by Stephen King	4
4.	The Far Side Gallery 3, by Gary Larson	—
5.	Beloved, by Toni Morrison	1
6.	The Dictionary of Cultural Literacy, by E. D. Hirsch, Jr., Joseph F. Kett, and James Trefil	—
7.	All I Really Need to Know I Learned in Kindergarten, by Robert Fulghum	—
8.	The Cat Who Came for Christmas, by Cleveland Amory	5
9.	Separated at Birth? by the editors of Spy	—
10.	Tales Too Ticklish to Tell, by Berke Breathed	6

The Chronicle's list of best-selling books was compiled from information supplied by stores serving the following campuses: American U., Brown U., Bucknell U., Carleton College, Carnegie Mellon U., Case Western Reserve U., Central Michigan U., Denison U., Idaho State U., Indiona U., Lawrence U., Lehigh U., Mankato State U., Montana State U., Pennsylvania State U., Portland State U., Princeton U., Stanford U., Tarrant County Junior College, Tulane U., U. of Alaska at Anchorage, U. of California at San Diego, U. of Hawaii, U. of Iowa, U. of Maryland–Baltimore County, U. of Missouri at Columbia, U. of Nebraska at Lincoln, U. of New Orleans, U. of Notre Dame, U. of Pittsburgh, U. of Puget Sound, U. of Texas at Austin, U. of Virginia, U. of Washington, U. of Wisconsin at Madison, U. of Wisconsin at Milwaukee, and Xavier U. (Ohio). Reports covered sales of hardcover and paperback trade books in December.

Marymount College of Kan. Announces It Will Close

Marymount College of Kansas, faced with low enrollment and a $1.2-million deficit, will close in June.

Marymount, which is owned by the Roman Catholic Diocese of Salina, was a women's college from its founding in 1922 until 1967, when it admitted men.

While enrollments have been stable in recent years, they have fallen significantly from their high of around 800 in the late 1970's. The college enrolled 653 students this fall, 374 of them full time.

William H. Wunder, the college's last president, resigned at the end of December. Sister Monica Schneider has been serving as acting president since then.

Faculty members and students have announced that they hope to raise enough money to keep Marymount open, a college spokesman said.

Berkeley to Dismantle Research Reactor

To make room for an engineering building, the University of California at Berkeley will dismantle its 21-year-old nuclear reactor, which was shut down last year.

The one-megawatt research reactor was the target of political protests. Community groups also said that public health could be endangered by radiation released during an earthquake.

Use of the reactor for teaching and research by the university's nuclear-engineering department declined in recent years.

More than 100 fuel rods from the reactor will be sent to the Idaho National Engineering Laboratory. About 450,000 pounds of radioactive waste will be shipped to a federal repository in either Nevada or Washington, a spokesman for the university said.

Dismantling the reactor will cost about $1.2-million and take about one year.

Medical-School Loans to Cost Less in Future

The Association of American Medical Colleges announced changes in its loan program last week that could save medical students thousands of dollars and decrease the federal government's stake in the student-loan market.

Beginning this spring, the association will phase federally insured Health Education Assistance Loans out of its MEDLOAN program. They will be replaced by greater use of the association's alternative-loan program, which is privately insured.

The alternative loans will carry an interest rate during repayment that is three-tenths of a percentage point lower than that of the loans they replace. Also, interest on the alternative loans is compounded less frequently.

The MEDLOAN program will continue to provide Stafford Student Loans and Supplemental Loans for Students, which are federally insured.

SAT Results Differ for Asians and Whites

For Asian-American students, scores on the mathematics section of the Scholastic Aptitude Test predict freshman-year grades in college more accurately than do verbal scores, according to a study published by the College Board. For white students, however, the opposite is true.

The report warned that efforts by colleges to change admissions criteria to place more emphasis on verbal scores would have an "adverse impact" on Asian-American applicants, who typically have higher mathematics scores and lower verbal scores than white applicants.

For both groups, the high-school grade-point average is the best single predictor of freshman grades, the report said.

The study was conducted by Stanley Sue, a psychology professor at the University of California at Los Angeles, and Jennifer Abe, a graduate student there. They analyzed the academic performance of 4,113 Asian-American and 1,000 white freshmen enrolled at the University of California in fall 1984.

St. Cloud State Bans Sale of Sex Magazines

A panel of students, professors, and staff members at St. Cloud State University has voted to ban the sale of *Penthouse*, *Playboy*, and *Playgirl* magazines in the university's student center.

The vote by the Atwood Student Center Council came on the fourth day of a sit-in at the center's newsstand, a university spokesman said. The protest was staged by the Women's Equality Group, a campus organization, and by Women for Social Justice, a community group.

The spokesman said the two groups believed that *Playboy* and *Penthouse* degrade women. *Playgirl*, which features men, was the only other sex-oriented magazine for sale at the newsstand.

The manager of the campus bookstore agreed to stop selling the maga-

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Note Book

Students in Washington State University's hospitality-management program, one of the oldest in the country, will be getting beefed-up instruction as soon as program officials find a "distinguished professor of fast-food service."

The endowed professorship, said to be the first of its kind in the nation, is the result of a gift from the Taco Bell Corporation, an Irvine, Cal., subsidiary of PepsiCo Inc.

Taco Bell, which controls the lion's share of the country's Mexican-style fast-food market, recently gave the university $250,000 that the State of Washington will double under an endowment-matching program.

Officials say the "distinguished professor" will be "the anchor of a strategy" to build the hotel- and restaurant-administration program into a national leader.

Rom J. Markin, dean of the college of business and economics, said the relationship with Taco Bell would help put the program "at the very forefront of the hospitality-education field and will enable us to expand our offerings in the multi-unit-mass-merchandising area," which he said had recently experienced "explosive growth."

Money from the endowment will be used for research ventures between the university and industry, as well as for improving fast-food-service courses (in which students will not be tested but grilled).

■

Albert Camus's "The Plague" has been prescribed to foster a spirit of community at the University of North Carolina at Greensboro, where all students and faculty members in the College of Arts and Sciences have been asked to read the book.

They will be doing so on their own or in their courses, from Western civilization to French (which is the book's original language) to biology. The project will culminate in April with a panel discussion and possibly a short dramatic presentation.

The All-College Read committee appointed by Joanne V. Creighton, dean of the college, narrowed its selections for the project down to Camus's book—about a plague striking a city in Algeria—and Mary Shelley's *Frankenstein*. Then, by a margin of 2 to 1, the faculty voted in favor of *The Plague*.

"It is very timely, because we are currently becoming very plague-conscious in our society—with AIDS and our environmental problems," said Mark Smith-Soto, who heads the department of Romance languages and is chairman of the committee.

He said he hoped the project would "help bridge the gap that separates the various departments in the college." In addition, he said, it stresses to students the college's belief that reading is very important. "V.C.R.'s are fine. So are movies. But the rich repository of human knowledge is in books."

Students

Law Schools Expect a Record Number of Applicants, but Interest in Public-Service Jobs May Be Waning

While applications rise, proportion of graduates taking jobs to help the disadvantaged declines

By KATHERINE S. MANGAN

Whether it's because they are turned on by "L.A. Law" or turned off by Wall Street scandals, a record number of students are expected to apply to the nation's law schools this year.

Based on preliminary figures, law-school officials predict that applications this year will be up 20 to 25 per cent over last year. In any case, it is almost certain to be the third straight year of double-digit increases in applications.

But while interest in law is booming, some observers in the legal community worry that the number of students going into public-interest law remains low. According to a report in the *National Law Journal*, only 2 per cent of the nation's top law graduates in the past five years went directly into public-interest jobs, which serve poor and underrepresented people. That figure is based on reports from eight prominent law schools.

The National Association for Law Placement reports that the proportion of law-school graduates taking such positions—most of them in community and non-profit organizations—dropped to 3 per cent in 1987 from 5.3 per cent in 1977.

Part of the decline in public-interest law is due to massive cuts in the federally financed Legal Services Corporation, whose offices around the country provide legal help to the poor. It is also due, in part, to a tremendous growth in both the size and number of private law firms, which are recruiting more aggressively, law-school officials say.

"The growth of these firms is incredible," says Christopher Dunn, a staff counsel with the American Civil Liberties Union who has compiled statistics on the job placement of law-school graduates. "They're really squeezing public-interest firms out of the recruitment process."

A Mounting Burden of Debt

Other reasons cited for the decline in public-interest employment are:

- The mounting debt burden of law-school graduates.
- The growing disparity between salaries in public-interest and corporate jobs.
- Inadequate attention at some law schools to public-interest issues.
- The perception by many students that large private firms offer more prestige and opportunities for career enhancement.

Sally Hadden, a student at Harvard Law School who is active in a student-run group called the National Association for Public Interest Law, says many students who would like to practice public-interest law cannot afford to.

JANE REED, HARVARD U.

Joyce Curll: Harvard's increase in applications could be as high as 30 per cent over last year.

"It takes a lot of guts—when you're looking at a repayment schedule of $300 or $400 a month for the next 10 or 15 years—to move into a public-interest job, knowing you won't have the money to get your car fixed or fix up your apartment, or to travel the way your friends are," Ms. Hadden says.

The association, which helps raise money to finance public-interest projects, estimates that the average student who takes out a loan has to repay a combined college and law-school debt of between $30,000 and $40,000.

According to a study of 1987 law-school graduates conducted by the National Association for Law Placement, public-interest organizations offered an average starting salary of $23,199—about half the $46,005 average starting salary in a large firm. For very large firms—those with more than 100 lawyers—the average starting salary that year jumped to $53,683.

There are as many theories to explain the soaring applicant pool as there are to explain the dearth of graduates going into public-interest jobs.

Effects of TV Series

One explanation, which is offered with varying degrees of seriousness, is the "L.A. Law" theory. Several law-school officials interviewed said the popular television series had glamorized the profession and might have been a factor in some students' decisions to attend law school.

"Anything that affects the image of a profession is going to have an impact on a student's decision to go into it," says William J. Kennish, vice-president of operations for the Law School Admission Council. On the television show, he says, "they're getting nice big salaries doing nice work for the right reasons."

Recent events that pushed the legal profession into the national spotlight may also

Continued on Following Page

National Endowment Study Finds Little Growth in Undergraduate Humanities Requirements

By BEVERLY T. WATKINS

WASHINGTON

Despite widespread calls for curricular reform, the proportion of higher-education institutions that have increased their general-education requirements for undergraduates has grown only slightly in the last five years, according to a survey released here this week.

Almost all institutions—96 per cent of four-year colleges and universities and 90 per cent of two-year colleges—now have some general-education requirements for all undergraduates, says a report of the survey, which was conducted for the National Endowment for the Humanities.

Larger Increases in Other Fields

But the study found that 5 per cent or fewer of all colleges had increased their requirements in the humanities—including composition, foreign languages, history, literature, and philosophy—since the 1983-84 academic year.

The increases in other disciplines, including mathematics and the sciences, were somewhat larger. The largest in-

Continued on Following Page

Undergraduate Academic Requirements by Type of Institution, 1983-84 and 1988-89

	4-year				2-year	
	Public		Private		All	
	83-84	88-89	83-84	88-89	83-84	88-89
English composition	94.2%	93.3%	83.6%	84.6%	92.2%	93.6%
English or American literature	50.6	52.7	52.3	55.8	26.7	28.0
Foreign language	9.0	9.8	25.1	29.8	4.0	4.0
History	53.1	57.3	60.1	65.2	33.6	34.6
Philosophy	14.1	18.0	44.8	47.7	6.5	7.4
Classics	3.8	4.9	3.1	4.7	0.0	0.6
Other humanities	31.9	33.3	57.7	64.7	28.4	33.6
Unspecified humanities	49.7	54.2	45.2	49.1	41.9	48.6
Studio or performing arts	24.4	27.3	21.4	23.9	1.3	5.3
Social sciences	74.0	76.4	72.9	82.2	63.0	68.5
Mathematics	52.4	65.0	43.2	55.5	54.5	64.3
Natural sciences	62.2	70.8	58.5	64.5	49.8	55.5
Mathematics and/or science	35.1	34.1	30.3	31.3	33.8	36.3
Other areas	54.6	57.9	56.8	64.8	51.5	57.2

Note: The figures are based on a survey of 504 colleges and universities conducted in the spring of 1988. The response rate to the survey was 98 per cent. Institutions were asked to report only those requirements that all undergraduates must meet to earn a degree.

SOURCE: NATIONAL ENDOWMENT FOR THE HUMANITIES

Applications to Law Schools May Set Record

Continued from Preceding Page

have sparked some interest, law-school officials note. Among them: the Iran-contra hearings in Congress and the battle over the nomination of Robert Bork to the U.S. Supreme Court.

Law schools also may have been indirectly affected by the negative publicity that big business has received as a result of insider-trading scandals and the 1987 stock-market crash. Some law-school officials believe those events may have scared off some potential business-school students, prompting them to consider law school instead.

Strong Economy Cited

One person who doesn't buy that theory is Stephen Schreiber, program director for the Graduate Management Admissions Test. In the 1987-88 academic year, he says, a record 269,000 students registered to take the test, which is required by most major universities for entrance into an M.B.A. program. But the increase, 3 per cent, was considerably smaller than that in each of the past several years.

Another possible explanation for the surge in law-school applications, according to Mr. Kennish of the Law School Admission Council, is the relatively strong economy. In a recent study, he found that the number of students taking the Law School Admission Test jumped when inflation slowed.

Joyce Curll, assistant dean for admissions at Harvard Law School, says her office has been swamped by applications this year. Although it is too early to draw any conclusions, she says, the increase in applications could be as high as 30 per cent over last year. She does not believe any single event is responsible, but applicants did mention a few.

"People mentioned the Bork hearings and the contra hearings," she says. "Only one person mentioned 'L.A. Law.' I assume they were too embarrassed to."

At law schools around the country, administrators report no shortage of idealistic students who believe—at the outset, at least—that they will use their degrees to help disadvantaged members of society. But by the time they graduate, most have succumbed either to financial pressures or to the lure of the prestigious firms that aggressively recruit on their campuses, administrators say.

"These firms come to campus and put on lavish displays at the Sheraton with shrimp cocktail and oysters Rockefeller," says Ms. Hadden. "They have an opportunity to impress. Most public-interest firms don't have the money to compete."

Ron Fox, who coordinates public-interest job placement for Harvard Law School, calls the imbalance "a massive problem." He says 35 per cent to 40 per cent of the law school's entering students plan a public-interest career. However, 5 per cent at most end up in either government or public-interest work right after graduation.

Law schools need to do more, Mr. Fox says, to educate students about career choices and to ease the financial burden of those who decide to accept low-paying, public-interest jobs.

Sue Schechter, a lawyer with the National Association of Public Interest Law, agrees. She says law schools should devote more energy and resources to educating students about public-interest careers.

"We need to do something to make public-interest work not only possible, but respectable," she says. "From day one of law school, students should be told they have a commitment to public service."

Public-Service Responsibilities

Even if students do not plan to take a public-interest job, they should be sensitive enough to their public-service responsibilities to perform *pro bono* work when they get out of law school, says Stefan H. Krieger, associate director of the Southern Methodist University Civil Clinic. Students at the clinic work under faculty supervision, representing local clients on such issues as civil rights, immigration, and consumer protection.

"I don't think a law professor standing in front of a classroom lecturing about poor people is going to convince them," says Mr. Krieger, who is an assistant professor of law at S.M.U. "They should be exposing them in real-practice, in clinics. We should be sensitizing them to their obligations as lawyers, even in big firms, to perform public-interest work."

While relatively few law-school graduates go into public-interest jobs immediately upon graduation, many switch into lower paying jobs at some point in their careers, law-school officials say.

A 55-Pct. Pay Cut

Joseph M. Sellers is a case in point. A graduate of Case Western Reserve University School of Law, he worked for several years for a large, private firm before taking a 55-per-cent cut in pay to accept a job with the Lawyers Committee for Civil Rights Under Law. While his job at a large firm allowed him to repay some of his loans and to buy furniture, it also gave him the supervision and guidance he says he might not have found otherwise.

"After a while, I realized that working for a firm whose principal motive was maximizing profits was not what I was most comfortable with," he says.

His current job is personally satisfying, but required some serious financial sacrifices. "Ten years out of law school," he says, "I'm still earning less than the starting salaries of lawyers in most large firms."

Little Change Seen in Requirements

Continued from Preceding Page

crease in requirements was for mathematics in four-year colleges.

N.E.H. Chairman Lynne V. Cheney expressed some disappointment over the survey's findings.

"We should take satisfaction in some progress," she said, "but one would have hoped that all the concern about curriculum reform would have resulted in more."

However, Ms. Cheney acknowledged in an interview that "curriculum reform is enormously difficult."

Although she seeks stronger humanities requirements, Ms. Cheney said, "I don't bemoan the increase in other disciplines. I always worry about students not being exposed to social sciences and math."

On average, students who entered four-year colleges this year seeking a baccalaureate degree must take a minimum of 52 semester credit hours in general education, the report says. Those credits represent 41 per cent of the total needed for graduation, up from the 38-per-cent minimum required of students in 1983-84.

The report says four-year institutions are changing the structure of their general-education requirements. In 1988-89, for example, about 86 per cent of the colleges limited the range of courses students could take to meet the requirements, up from 77 per cent five years ago.

504 Institutions Responded

"If this trend continues," said Ms. Cheney, "we may see a time when students are sufficiently directed by general-education requirements that it will be very difficult to get a baccalaureate degree without studying English, history, philosophy, and foreign languages."

The N.E.H. commissioned the survey last spring to provide national data on changes in the last five years in general-education course and credit requirements, particularly in the humanities. The survey, based on a questionnaire completed by 504 institutions, was conducted by the Higher Education Surveys System.

Copies of the report, "Undergraduate General Education and Humanities Requirements," are available free from the National Endowment for the Humanities, Office of Planning and Budget, Room 403, 1100 Pennsylvania Avenue, N.W., Washington 20506.

Some Programs Make Low-Paying Legal Jobs Attractive

PITTSBURGH

When Kerri Cappella first learned about a local program for female offenders, it seemed like an intriguing place to spend her first summer after law school.

The program was eager for an intern. The problem was, it couldn't afford to pay a salary, and Ms. Cappella couldn't afford to work free.

Fortunately for both of them, the University of Pittsburgh School of Law is one of a growing number of law schools where students, faculty members, and alumni have chipped in money to make such jobs feasible.

The Pittsburgh law school's Legal Income Sharing Foundation gave Ms. Cappella a $2,500 grant to spend 10 weeks visiting female inmates, researching their cases, and answering their legal questions.

"If I hadn't gotten the grant, there is no way I would have been able to work there," says Ms. Cappella.

The money that allowed her and eight of her classmates to work in low- or non-paying public-interest jobs last summer came from law-school students, faculty members, and alumni who wanted to help provide better legal representation for the poor and other disadvantaged groups.

The income-sharing foundation is affiliated with the student-run National Association for Public Interest Law (NAPIL), which currently has member groups on 43 campuses. Members of NAPIL groups are typically asked to contribute 1 per cent of their summer earnings or a day's pay to help finance grants for students interested in public-interest jobs.

Last year, the groups raised about $600,000, which supported some 300 jobs with legal-services offices, civil-rights groups, and other non-profit legal organizations.

"The people these groups generally represent would not get legal help if it were not for these kinds of projects," says Sue Schechter, staff lawyer for the association, which was founded in 1986. "For the legal profession, it's embarrassing to see the number of people who are going unrepresented."

Yale Program Began in 1974

Student-financed fellowships have been around for years at some institutions, such as Yale Law School, which started its program in 1974. The past few years, however, have seen a surge in interest, in part because of the growing frustration of students who feel they cannot afford to take public-interest jobs, organizers say.

"Without the summer grants, hundreds of students would not be able to take jobs in the areas that interest them," says Michael Caudell-Feagan, NAPIL's executive director.

The NAPIL headquarters recently sent letters to 400 of the country's largest law firms asking them to contribute $1,000 for every five summer associates they hire, up to a maximum annual contribution of $10,000. By January, five law firms had signed on, and about 15 more had indicated interest, Mr. Caudell-Feagan says.

Myra A. Nakelsky, a student at the University of California's Hastings College of Law and president of NAPIL, says law-school administrators are "starting to sit up and take notice" of students' efforts to make public-interest work affordable.

SARAH HOGAN

Michael Caudell-Feagan: "Without summer grants, hundreds of students would not be able to take jobs in areas that interest them."

Among the measures that are being instituted or expanded at some law schools are loan-forgiveness or deferral programs for students who accept low-paying public-interest jobs.

At Harvard Law School, for instance, administrators decide how much students can afford to pay on their law-school loans, based on their salary, and the school pays the rest. Some other law schools, rather than forgiving part of the loan, make it possible for the student to pay it back over a longer period of time.

Some schools are financing their own summer-grant programs for students wishing to pursue a public-interest career. Last summer, 80 New York University law students received grants that paid them $275 a week to work with such groups and programs as an American Indian-rights project in Boulder, Colo., a civil-rights group in Israel, a Sierra Club chapter in Alaska, and a project for the homeless in rural Tennessee.

"The demand for these projects is so tremendous that we have a long waiting list," says Jane Thieberger, placement director at N.Y.U.'s law school. "With this kind of assistance, students are able to follow their dreams."

—KATHERINE S. MANGAN

Mathematics Education Is Inadequate, a Report Charges

Continued from Page A1

taught well, because their professors "tend to focus their teaching on those who might become mathematicians."

According to the report, mathematics professors tend to stick to the curriculum they learned, rather than introducing the latest advances in the discipline, or even teaching the subjects of their research. For instance, most mathematics curricula, from kindergarten to graduate school, ignore modern mathematics.

"The arithmetic, algebra, geometry, and calculus taught nowadays are mere shadow images of modern mathematics," the report said.

In addition to its role in physical science and engineering, "mathematics today is a diverse discipline that deals with data, measurements, and observations from science; with inference, deduction, and proof; and with mathematical models of natural phenomena, of human behavior, and of social systems," the report said.

The report recommended that all students be taught mathematics to "the level of literacy formerly associated with the few who entered college," and that all college students be taught "the degree of facility with mathematics formerly required only of those preparing for scientific careers."

Calculators and Computers

To accomplish these goals, it said, colleges and universities must establish a "national plan for mathematics" that builds on proposed national standards for elementary- and secondary-school mathematics education.

The report endorsed the use of calculators and computers at all levels of mathematics. It cited studies that show that the use of such tools does not prevent students from learning basic skills like division, but does make other areas of mathematics more accessible.

In addition, the report said, faculty members should concentrate on making introductory mathematics courses "attractive and effective," should lecture less and try other teaching methods, and should make sure that students learn mathematics as it is currently practiced.

Little additional financing will be needed to restructure curricula and retrain teachers, panel members said. "We need to do better with what we are presently spending," said Ronald G. Douglas, dean of the college of physical sciences and mathematics of the State University of New York at Stony Brook and a member of two of the three committees that prepared the report.

"Universities spend half their time teaching what students saw in high-school mathematics classes but did not learn," he added. "If we change what is going on in high school, it will free us to pay more attention to training and retraining teachers."

Copies of the report are available for $7.95 each from National Academy Press, 2101 Constitution Avenue, N.W., Washington 20418; (202) 334-3313.

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Scientists ready to perform an experiment to put foreign genes into a human must first battle critics who sued to stop the research: Page A5.

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LOBBYISTS ARE WORRIED

Partisan Divisions on Key House Panel Seen Jeopardizing Education Measures

By ROBIN WILSON

WASHINGTON

Growing partisanship on a key House panel could jeopardize important education legislation that is expected to be considered this year, college officials fear.

The House Postsecondary Education Committee, where many of the most important bills affecting higher education originate, has been increasingly divided because of differences between Rep. Pat Williams, the Montana Democrat who is chairman of the panel, and Rep. E. Thomas Coleman of Missouri, its ranking Republican.

Different Approaches, Different Ideas

The two men have different approaches to drafting legislation and different ideas about how Congress should improve higher-education programs. They have even exchanged harsh words in public—something that is unusual for the leaders of an education subcommittee.

Educators are worried about the tensions because Democrats and Republicans on Capitol Hill have in the past worked closely on higher-education legislation. That bipartisan support, they add, has been crucial in paving the way for swift approval of important legislation and in blocking proposed budget cuts.

If the rift between Mr. Williams and Mr. Coleman continues, lobbyists say many key proposals will languish in the subcommittee or on the floor of the House, or be subjected to voting along party lines. In that case, they say, President Bush may be less likely to sign the legislation that does pass.

"We've had bipartisanship for many

Continued on Page A23

Record College Enrollments Mask Serious Flaws in Student-Admissions System, Experts Warn

By JEAN EVANGELAUF

Although enrollments are higher than ever, some educators are questioning whether the college-admissions system as a whole is serving students and society well.

With strenuous recruiting and by fashioning new programs to cater to untapped markets, colleges and universities have pulled off what many observers thought would be impossible: sustained high enrollments in the face of declining numbers of high-school graduates. Indeed, enrollments have topped 12 million throughout the 1980's and in the last year alone rose 2.4 per cent to a record 12.84 million, according to the U. S. Department of Education.

Nevertheless, some educators are not entirely happy with, in admissions jargon, "the great sort."

Says R. Russell Shunk, associate dean of admissions at Dickinson College: "In

Continued on Page A30

Colleges Face Tough Choices in 3 Northeastern States

Deficit-cutting efforts in Connecticut, Massachusetts, and New York are painful for colleges: Page A17.

Nobelist Found Guilty of Errors in Paper, but Innocent of Fraud

By DAVID L. WHEELER

A Nobel Prize–winning biomedical scientist and some of his colleagues are innocent of fraud but guilty of including "significant errors" in a scientific paper, a National Institutes of Health panel has concluded.

The panel of scientists convened by the N.I.H. said in a report released last week that it had found "significant errors of misstatement and omission, as well as lapses in scientific judgment and interlaboratory communication" in its investigation. The panel's investigation was followed by an additional examination of its conclusions by N.I.H. staff members.

Both investigations focused on a paper written by David Baltimore, director of the Whitehead Institute for Biomedical Research at the Massachusetts Institute of Technology, and several colleagues. The paper was published in a 1986 issue of the journal *Cell* and discussed the effect of genetic alterations on the immune systems of mice.

Charges Surfaced Last April

The scientific panel said "no evidence of fraud, conscious misrepresentation, or manipulation of data" had been found.

Allegations of possible scientific misconduct by Mr. Baltimore and others first surfaced publicly in Congressional hearings in April last year.

Some members of Congress have

Continued on Page A9

Vitriolic Student Paper Is Causing Lasting Harm, Many at Dartmouth Say

By LAWRENCE BIEMILLER

HANOVER, N.H.

Eight years after the founder of the Dartmouth *Review* paid for its first issue by cashing his student-loan check, the boastful, vitriolic weekly is getting more and more attention from the national news media. And it is dictating Dartmouth College's agenda to an extent no student-run newspaper ever has before, here or elsewhere.

The *Review* was founded in June 1980 by Greg Fossedal, who had just been ousted as editor of *The Dartmouth*. Although it had no official link to the college, the new tabloid won the backing of major donors in its earliest days—and proved controversial right from the first morning it was delivered, free, to dormitory rooms and faculty offices. Now averaging 16 pages a week, it has rarely gone more than a few months without publishing a story or causing

Continued on Page A14

BILL CONRADT, © 1988 VALLEY NEWS

Editor-in-Chief Harmeet K. Dhillon: "I don't think it's a valid contention that a journalist should avoid hurting feelings. If something's true, we're going to print it."

MARGINALIA

Food (and drink) for thought:

■

Among the charter members of University Microfilms' Early English Books Projects, according to an ad in this newspaper, is the University of Illinois at Urbana-Champagne.

■

News item in the *Stanford Daily*:

"A vandal or vandals stole part of a White Plaza structure built to house celebrations of the 10-day Jewish holiday 'Sukkot.' . . .

"During the 10-day holiday, which commemorates the Jewish people wandering in the dessert . . ."

■

Judith Muñoz, of the University of San Diego, found the following message in a fortune cookie:

"You will gain admiration from your pears."

■

From the Ball State University *Daily News*:

"The five newest members were inducted into the Athletic Hall of Fame in a ceremony Saturday night at Cardinal Hall. . . .

"After a meal for family, friends, and fellow inductees, the inductees were given their plagues. . . ."

Maybe it was something they ate.

■

From the Johns Hopkins *Peabody News*:

"*Good news from* NASA. The Hubble Space Telescope has a lunch date of December 1989, two months earlier than originally scheduled."

With a Milky Way for dessert?

■

Speaking of Milky Way: This message turned up on the answering machine in the admissions office at the New School for Social Research:

"Hi! I'm a loving person named ———. I have some valuable points to raise. Is it possible that the Rosetta stone is actually a communicator for the Milky Way? Is it? Or are we deluding ourselves? Is it possible that the world has overextended itself? Is it? I'm serious. I'm serious. Is the Rosetta stone—the Dead Sea scrolls—are they similar to what the earth, what the world has put in the Milky Way? Has it? Will it?"

■

From *The Cornerstone*, a newsletter for the faculty and staff at the University of Alaska at Fairbanks:

" 'Since we don't have a Supreme Court to adjudicate differences, we try to come to understandings,' says David Smith, the president of the UAF Faculty Senate. 'I sit on the Executive Council and eat lunch with the chancellor, and we try to let each other know what's going on in our respective bodies.' "

Indigestion, probably. —C.G.

In Brief

University Given Papers of Professor It Fired

The University of Vermont will receive the scientific and personal papers of a biochemist it fired in 1953 for refusing to aid a Congressional hunt for Communists in higher education.

Phyllis Novikoff donated the papers of her late husband, Alex Novikoff, to the university to demonstrate that he had forgiven the institution before his death in 1987.

The university fired Mr. Novikoff after he took the Fifth Amendment in testimony before a Senate committee. The Senators had asked him to identify Communists he had known when he taught at Brooklyn College of the City University of New York.

The papers will become part of the manuscript collection in the Vermont library. "I see them as being important for documenting that period in American history, to document academic freedom, and to document the history of the University of Vermont," said Connell Gallagher, the university's archivist and curator of manuscripts.

Opinion Extends Reach of Campus Discipline

Maryland's Attorney General issued an opinion last week that gave the state's public universities the power to discipline their students for actions off campus.

In the opinion, Attorney General J. Joseph Curran, Jr., said: "A state university or college may discipline a student for off-campus misconduct detrimental to the interests of the institution, subject to fundamental constitutional safeguards that apply to all disciplinary actions by educational officials."

State legislators asked Mr. Curran for the ruling after residents who live near the University of Maryland's College Park campus complained about being unable to stop students' raucous parties and destruction of property.

The ruling is at odds with the university's policy of the past two decades, which has been to insist that students, while off campus, be treated like other citizens.

University officials expressed reservations about the opinion. "For institutions to get involved with disciplining students off campus opens a Pandora's box," said Drury G. Bagwell, assistant vice-president for student affairs.

EPA Charges Violations by Haverford, Penn

The Environmental Protection Agency has charged Haverford College and the University of Pennsylvania with violating regulations that govern inspections and maintenance of equipment containing polychlorinated biphenyls, or PCB's.

In its complaints, the agency proposed penalties of $94,300 for Haverford and $274,500 for the university.

The violations were discovered during inspections that the agency conducted on the two campuses in February 1988.

At the University of Pennsylvania, the agency said, officials allowed transformers to leak PCB's fluids and failed to maintain records of inspections. The agency said Haverford had improperly stored combustible materials near a transformer that contains PCB's and failed to maintain records and conduct inspections.

Shelley Z. Green, general counsel at the university, said it had been "scrupulous in most instances" in complying with the regulations and intends to document its record for the agency.

Pamela M. Sheridan, Haverford's director of college relations, said college officials believed some of the charges were incorrect and would appeal at a hearing.

Student Linked to Computer 'Virus' Granted Immunity by U.S. Attorney

SYRACUSE, N.Y.

Robert T. Morris, Jr., the Cornell University graduate student believed to have created the computer "virus" that paralyzed a national research network last fall, has been granted limited immunity by the U.S. Attorney's office here. In return, he has agreed to cooperate with a federal investigation of the incident.

Mr. Morris is said to have told friends that he wrote the short computer program, but did not know that it would keep reproducing itself on the network until it clogged communication lines to some 6,000 computers.

According to Justice Department officials, the limited-immunity agreement might result in charges against Mr. Morris being reduced. The Computer Fraud and Abuse Act of 1986 makes it a misdemeanor—or in some cases a felony—to gain unlawful access to a government computer. The felony penalty is a maximum of 20 years in jail; the misdemeanor penalty is up to one year in jail and up to $250,000 in fines.

The computers that were attacked were reached over ARPANET, a network supported by the Defense Department.

Officials of the Justice Department and the Federal Bureau of Investigation would not discuss the case.

—JUDITH AXLER TURNER

Flu Infects 12,000 at Penn State U.

An influenza virus infected about 12,000 students at Pennsylvania State University's main campus—the worst outbreak in several years.

Harry M. McDermott, director of university health services, said the University Park campus was the only one in the Penn State system affected by the virus, although other colleges in the state also reported outbreaks.

A survey conducted by state epidemiologists estimated that more than one-quarter of the campus's 37,000 students had some flu symptoms, although not all sought medical care at the university's health center.

The campus health center typically sees about 400 students daily, but that number rose to 550 during the flu outbreak.

Some other colleges have also reported a higher-than-usual incidence of flu, among them George Mason University and the University of Minnesota.

Abortion Protest Prompts Arrests at U. of Iowa

A protest outside a University of Iowa abortion clinic ended in the arrest of 155 demonstrators.

The anti-abortion activists were charged with criminal trespass after refusing requests to leave. Only a few were students, according to a university spokesman.

The campus facility is part of the University of Iowa Hospitals and Clinics.

Minority-Recruiting Tips Available in New Book

The American Council on Education has released a handbook of strategies to help institutions increase minority participation on their campuses.

The book outlines both tactics for recruiting minority students and ways to make campuses more hospitable to minority groups.

It also profiles three institutions—Miami-Dade Community

Record-Breaking Cold Wave in Alaska Forces Changes on Campuses, but Few Classes Are Canceled Outright

By PETER MONAGHAN

SEATTLE

Temperatures far below zero have forced students and faculty members to change their daily routines on many Alaska campuses, but few classes have been canceled outright.

The record-breaking cold wave, during which readings of −50° Fahrenheit have been commonplace, last week prompted Gov. Steve Cowper to declare a state of emergency. Air transportation has been particularly hard hit, and many towns and villages have been cut off for as long as two weeks.

Most campuses stayed open, however, said Edee Rohde, director of information services at the University of Alaska's system office in Fairbanks.

−120° at Chukchi College

"It's business as usual," she said, although she added that many students were calling ahead before coming to class—just in case.

At Chukchi College—the northernmost on the continent—unofficial measurements put the wind-chill temperature at −120°. Chukchi, which is administered by the University of Alaska's Fairbanks campus, is in Kotzebue, 25 miles above the Arctic Circle.

By last week, Chukchi was "having a heat wave," said the campus director, Lynn Johnson. "It's warmed up to 40 below."

He said the college had closed for one day, when the wind-chill temperature dropped to between −120° and −110°. Staff members and students, most of them from the region and well versed in cold-weather survival, were guarding closely against frostbite and hypothermia, Mr. Johnson added.

"You've just got to dress for it and not take any chances," Mr. Johnson said. "In Kotzebue, the distances you're walking are not all that terrible."

He added, however, that the cold had forced an extension of the semester. Many of the college's off-campus-learning programs, which rely on radio and audiovisual links with students, also require that books be sent to the students in their villages. "Most books come in from Fairbanks," Mr. Johnson said, "but in some cases villages have had no mail delivery for two weeks."

Town Shrouded in Ice Fog

On some campuses, said Ms. Rohde, "people have not experienced this kind of cold before and are quite baffled by it."

"But the reality is that this is what Alaskan weather has always been," she said. "It's just that it's been years since it was this severe."

On a −50° day last week, she said: "At this moment, if I stand up, I can see that the town is shrouded in ice fog quite severely. I'm in a building slightly up the hill. Getting here is frightening."

Visibility was officially measured at one-eighth of a mile, she said, "but it's worse than that—we're talking about not being able to see the car three or four car lengths ahead of you."

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New AAAS Leader Draws Praise, Raises Concern

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out there aren't enough physicists," he added.

One mission of the science association, he said, is to explain to the public why support for research is so important. When research support fluctuates from year to year, the instability can make it very difficult for talented students to stay in science.

Asked about the current debate on setting priorities for federal spending on science, Mr. Nicholson said the nation needed to spend more on research. But priorities must be set, he added.

Views on Supercollider

In comparison to the urgency he expressed about training, Mr. Nicholson said the $4.4-billion Superconducting Supercollider was a project that could be delayed. He added, however, that it was intellectually exciting and said he hoped the country could pursue it.

Some science-policy experts last week praised Mr. Nicholson.

John C. Crowley, vice-president of the Association of American Universities, said he could describe Mr. Nicholson "only in superlatives."

"He is one of the most thoroughly professional and able individuals I've ever met in any of the federal agencies," Mr. Crowley added.

Irving Shain, the former chancellor of the University of Wisconsin at Madison, under whom Mr. Nicholson studied for his doctorate in chemistry, said the paper that Mr. Nicholson wrote for his doctoral thesis was so influential that it is now considered a classic in terms of the frequency with which other scientists have cited it in their own work.

Mr. Shain also praised Mr. Nicholson as having been vigilant in his defense of support for basic research during his years at the foundation. Mr. Shain also described him as articulate and knowledgeable in testifying before Congressional committees through the years.

Questions Over Role at NSF

Others still had questions about Mr. Nicholson's role in a recent controversy at the foundation, and about how strongly he had lobbied inside N.S.F. on behalf of basic research.

Program directors for the section of the N.S.F. that supports theoretical research on condensed matter—an office under Mr. Nicholson's purview that also supports superconductivity research— found a budget crisis on their hands a year ago.

Their predecessors had tentatively promised to give so much money to researchers for continuing projects that very little would have been available for new grants or to renew the awards of researchers whose grants had just ended. They made adjustments, but there were still few new awards for superconductivity research, even though there had been exciting breakthroughs in that area.

Mr. Nicholson called the situation "in large measure a management problem," and accepted responsibility for it. He said he now receives regular reports on the commitments that have been made for every program.

Herbert B. Shore, a professor of physics at San Diego State University, was one of the new program directors who discovered they had the budget problem last year. Mr. Shore said the directors had repeatedly tried to pass a warning about the pending crisis up through the organization, but that it had never reached Mr. Nicholson.

But Mr. Shore said he was more concerned that Mr. Nicholson and other top foundation officials had generally responded inadequately to the unusual opportunities in superconductivity research.

He added that, within N.S.F., Mr. Nicholson did not seem to be a strong advocate for basic research in mathematics and the physical sciences—the area for which Mr. Nicholson is responsible. That area is now woefully short of funds, he added. Other scientists whose work is financed through Mr. Nicholson's office have also complained about the lack of money for such research.

Others say Mr. Nicholson is largely untested in the role of taking a leading public role in science-policy debates. Some suggest that he may continue to play the loyal lieutenant under Richard C. Atkinson, the new president of the science association, who is experienced in such debates.

Still others, however, predict that Mr. Nicholson will do very well in his new role. "Certainly when he chooses to speak," said Mr. Crowley of the A.A.U., "people will listen."

College Officials Relieved by Drug-Law Regulations

Continued from Page A17

least temporarily—on the new rules, which will take effect next month. And the regulations closely follow the law.

Milton Goldberg, executive director of the Council on Governmental Relations, which represents research administrators at many major research universities, said he was pleased that the rules don't "go one whit beyond the law."

Moreover, the White House Office of Management and Budget, in an introduction to the new rules in the *Federal Register*, stated that drug tests of employees—which some college officials had feared would be required—would not be required.

However, the rules do not make clear exactly how student-aid benefits will be affected. The regulations do not mention student aid specifically. But they apparently would require students, before receiving a Pell Grant, to sign a statement certifying that they would not violate drug laws "in conducting any activity with the grant."

Student-aid administrators are concerned that the requirement may generate additional paperwork and make the process of applying for aid more confusing. Students already are required to sign statements saying they have registered with Selective Service before they can receive aid. As with that requirement, it is not expected that colleges will have to certify that students are telling the truth about whether they use drugs.

Requirements for Employers

Mr. Goldberg said he believed most colleges would not be bothered by the cost of following the rules because the drug problem is so severe.

The rules require employers who receive contracts of at least $25,000 and all grants to certify that they will keep the sites where the work covered by the specific grants or contracts will be performed free from illegal drugs by:

■ Setting up a drug-awareness program for employees that provides information about any drug-counseling programs the employer chooses to offer, and describes the employer's policy against illegal drug use on the job and the penalties for employees who violate the policy.

■ Requiring employees who are directly involved in federally supported work to notify the employer if they are convicted of having violated drug laws at work. The employer would be required to pass the information on to the federal government.

■ Penalizing such employees or requiring them to take part in a drug-rehabilitation program.

Apparently, federal agencies will determine on a case-by-case basis whether an entire university or just the department conducting research will be considered the employer.

If an employer fails to make a "good faith" effort, the federal government could impose penalties. The most severe would be a ban on all federal awards for up to five years.

If an award of any size is made directly to a person—that is, if the check is written to an individual instead of to his or her university—that person would have to certify that he or she would not violate drug laws in spending the grant. That provision applies to recipients of Pell Grants, Education Department officials said.

The federal government will accept public comments on the new rules until April 3, after which it will decide on a final version of them.

—COLLEEN CORDES

FACT FILE: U.S. Funds for Colleges and Universities

The top 100 institutions in total federal obligations for fiscal 1987

	Research and development †		Total federal obligations †	
	Amount	Rank	Amount	Rank
Johns Hopkins U	$374,656,000	1	$528,442,000	1
Stanford U	201,049,000	2	225,369,000	2
Mass. Institute of Technology	187,623,000	3	209,520,000	3
U. of Washington	164,891,000	4	202,073,000	4
U. of California, Los Angeles	147,795,000	6	174,488,000	5
Cornell U	128,695,000	11	169,259,000	6
U. of California, San Diego	151,768,000	5	167,637,000	7
Howard U ‡	9,173,000	137	166,784,000	8
U. of Michigan	134,977,000	7	162,625,000	9
U. of Minnesota	119,746,000	14	160,994,000	10
U. of Wisconsin, Madison	134,021,000	8	160,121,000	11
Columbia U., Main Division	130,724,000	10	157,970,000	12
Yale U	132,909,000	9	152,379,000	13
Harvard U	123,301,000	13	152,077,000	14
U. of California, San Francisco	124,811,000	12	144,658,000	15
U. of Illinois, Urbana-Champaign	96,761,000	17	138,686,000	16
Pennsylvania State U	94,615,000	19	132,135,000	17
U. of Pennsylvania	109,388,000	15	130,570,000	18
U. of California, Berkeley	96,748,000	18	122,112,000	19
U. of Southern California	104,395,000	16	120,928,000	20
U. of Colorado	87,623,000	21	109,561,000	21
Washington U	89,055,000	20	102,795,000	22
Duke U	84,622,000	23	98,594,000	23
U. of Rochester	85,674,000	22	96,567,000	24
Ohio State U	64,573,000	31	95,453,000	25
U. of Chicago	82,769,000	24	95,144,000	26
U. of North Carolina, Chapel Hill	81,473,000	25	92,141,000	27
New York U	75,966,000	27	91,528,000	28
U. of Pittsburgh	72,236,000	28	89,070,000	29
U. of Arizona	64,491,000	32	87,546,000	30
U. of Texas, Austin	76,495,000	26	81,014,000	31
Inter American U. of Puerto Rico, San German	58,000	583	80,102,000	32
U. of Iowa	63,479,000	33	79,871,000	33
U. of Massachusetts, Amherst	57,913,000	35	77,837,000	34
Michigan State U	48,897,000	47	76,270,000	35
Carnegie Mellon U	69,454,000	29	75,967,000	36
Indiana U	50,005,000	45	75,887,000	37
U. of Florida	52,888,000	43	75,850,000	38
U. of Alabama, Birmingham	62,240,000	34	75,304,000	39
U. of Utah	56,590,000	38	71,609,000	40
Yeshiva U	65,028,000	30	71,603,000	41
Purdue U	46,332,000	50	71,346,000	42
Georgia Institute of Technology	45,187,000	52	68,747,000	43
Boston U	53,331,000	41	67,030,000	44
Case Western Reserve U	56,774,000	37	65,418,000	45
U. of Miami	49,547,000	46	65,227,000	46
Northwestern U	53,061,000	42	64,774,000	47
Louisiana State U	36,581,000	61	63,203,000	48
Texas A&M U	38,642,000	58	62,408,000	49
U. of Maryland, College Park	48,728,000	48	62,327,000	50
Vanderbilt U	54,653,000	40	62,124,000	51
U. of California, Davis	50,289,000	44	61,667,000	52
California Institute of Technology	57,122,000	36	60,845,000	53
Baylor C. of Medicine	$56,255,000	39	$59,609,000	54
U. of Virginia	44,732,000	53	55,644,000	55
Gallaudet U ‡	1,050,000	270	55,184,000	56
U. of Cincinnati	34,488,000	65	53,938,000	57
Oregon State U	40,059,000	55	53,775,000	58
Emory U	47,294,000	49	53,698,000	59
U. of Puerto Rico, Regional Colleges Administration	0	—	53,687,000	60
U. of Oregon, Main Campus	16,560,000	104	52,123,000	61
U. of Texas Health Science Center, Dallas	45,994,000	51	51,827,000	62
Princeton U	44,286,000	54	51,224,000	63
U. of Kentucky	23,906,000	85	49,237,000	64
U. of Georgia	33,489,000	66	49,184,000	65
U. of Connecticut	38,806,000	57	49,089,000	66
U. of California, Irvine	39,384,000	56	48,863,000	67
North Carolina State U	30,195,000	70	48,129,000	68
Iowa State U	17,459,000	102	46,046,000	69
U. of Illinois, Chicago	32,490,000	67	45,772,000	70
New Mexico State U	25,072,000	83	45,567,000	71
Colorado State U	31,492,000	68	44,153,000	72
U. of South Carolina	11,741,000	123	44,118,000	73
Rutgers U	25,730,000	79	43,597,000	74
U. of New Mexico	25,158,000	82	43,426,000	75
Tufts U	36,241,000	62	43,122,000	76
State U. of New York, Stony Brook	38,014,000	59	42,514,000	77
U. of Missouri, Columbia	22,035,000	89	41,993,000	78
Virginia Commonwealth U	31,477,000	69	41,172,000	79
U. of Hawaii, Manoa	29,154,000	71	39,899,000	80
Rochester Inst. of Technology	2,485,000	203	39,567,000	81
Brown U	27,710,000	74	39,327,000	82
Rockefeller U	37,051,000	60	38,888,000	83
City U. of New York, Mount Sinai School of Medicine	34,851,000	63	38,437,000	84
Puerto Rico Jr. C	0	—	38,182,000	85
Utah State U	25,170,000	81	37,849,000	86
Virginia Polytechnic Inst. & St. U	23,588,000	87	37,204,000	87
U. of Tennessee, Knoxville	18,517,000	98	37,019,000	88
Temple U	21,361,000	91	36,762,000	89
State U. of New York, Buffalo	27,255,000	76	36,235,000	90
Woods Hole Oceanographic Inst	34,711,000	64	35,620,000	91
U. of Kansas	22,988,000	88	35,200,000	92
U. of California, Santa Barbara	27,322,000	75	34,253,000	93
Georgetown U	20,046,000	95	33,939,000	94
U. of Maryland, Baltimore	28,278,000	72	33,575,000	95
U. of Vermont	23,922,000	84	33,229,000	96
Oklahoma State U	11,383,000	126	33,188,000	97
Arizona State U	14,201,000	113	33,164,000	98
Florida State U	25,680,000	80	32,902,000	99
U. of Nebraska, Lincoln	15,126,000	111	31,901,000	100
Total, 100 institutions	**$6,014,028,000**		**$8,176,687,000**	
Total, all institutions	**$7,240,090,000**		**$13,466,552,000**	

Note: Federal obligations are funds set aside for payment. Institutions do not always receive them during the year in which they were obligated. This table differs from one published in the November 23, 1988, issue of The Chronicle, which covered research expenditures for fiscal year 1987, not obligations.

† Amounts shown represent total obligations from 15 federal agencies that accounted for about 95 per cent of all federal obligations to universities and colleges in the United States and for virtually all federal obligations to such institutions for scientific and engineering research and development. The figures exclude research and development obligations to university-administered, federally financed research-and-development centers.

‡ Howard U. and Gallaudet U. receive substantial appropriations from Congress each year for general operating expenses.

SOURCE: NATIONAL SCIENCE FOUNDATION

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News Summary

Articles on inside pages

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Most faculty members' decisions about when to retire probably won't be affected by the elimination of the mandatory-retirement age in 1994, a study has found: Page A13.

EDUCOM members trying to create a peer-review process for software have found it isn't easy: Page A13.

The more college officials learn about a plan to require national service in return for federal student aid, the less they like the idea: Page A19.

Although West Virginia education is in disarray, college presidents are optimistic order will soon be restored to the system: Page A19.

Buffeted by the 1987 stock-market crash, university endowments grew by only 1.3 per cent in 1987-88, a study has found: Page A27.

North Carolina colleges are getting millions of dollars in gifts from stockholders of RJR Nabisco: Page A27.

Most blacks at the predominately white U. of Colorado at Boulder feel isolated and unhappy: Page A33.

South Africa may impose new limits on the education of black high-school students: Page A37.

The Japanese are trying to make their colleges more attractive to prospective students: Page A37.

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Administrators' Pay Up 5.3 Pct. in Year, Outpacing Inflation

By CAROLYN J. MOONEY

Salaries of higher-education administrators, which failed to keep pace with inflation in academic 1987-88, rebounded by the start of the current academic year with an average 5.3-per-cent increase, a survey of 1,268 institutions has found.

According to the survey, conducted annually by the College and University Personnel Association, administrators fared better than they had the previous year, when the average salary increase, 3.3 per cent, fell below the national inflation rate for the first time in five years.

Administrators at private institutions did especially well, with average 1988-89 salary gains of 6.7 per cent, compared to 2.5 per cent for the previous year. Salary increases at public institutions also rose—to 4.9 per cent from 4.2 per cent.

The Consumer Price Index rose 3.9 per cent in the same period.

In the 11 years since the personnel association began conducting the survey on an annual basis, administrative salaries have

Continued on Page A15

Highest-Paid Administrators on Campuses This Year

Medical dean	$143,200
Medical-center chief	109,700
Dentistry dean	103,629
Law dean	100,500
Public-health dean	95,299
System head	95,242
Veterinary dean	92,340
Pharmacy dean	83,500
Institution head	80,000
Architecture dean	76,400

COLLEGE AND UNIVERSITY PERSONNEL ASSOCIATION

Bush Stresses Education, Science in His First Budget; Asks Increases Beyond Those Proposed by Reagan

Role of science adviser to be upgraded; black colleges singled out

By COLLEEN CORDES and ROBIN WILSON

WASHINGTON

President Bush last week stressed education, science, and technology in his first budget recommendation to Congress.

He proposed that the amount President Reagan had requested for education in fiscal 1990 be increased by $441-million.

"I've said I'd like to be the 'Education President,' " he told a joint session of the Senate and House of Representatives, "and tonight I'd ask you to join me by becoming the 'Education Congress.' "

Most of the new money for education would go to improve elementary and secondary schools. Some would be earmarked for historically black colleges.

Mr. Bush did not propose increasing support for Pell Grants and other federal student-aid programs beyond the modest raises proposed by President Reagan.

For federal science and technology programs, Mr. Bush made few significant changes in his predecessor's budget proposals. Mr. Reagan had called for increases in many areas, particularly for several big-ticket projects.

Excerpts from sections of President Bush's budget documents devoted to education: Page A25.

Mr. Bush also proposed that the status of his top science adviser be upgraded to that of Assistant to the President, with direct access to the Oval Office. A wide range of groups representing scientists, engineers, and businesses had urged Mr. Bush to make that change.

The President also renewed his pledge to set up "as soon as feasible" a Council of Science and Technology Advisers, to be made up of leading scientists, engineers, and business executives to help develop federal science policy.

Mr. Bush also endorsed Mr. Reagan's request for a 14-per-cent increase for the National Science Foundation, which would keep that agency on track in its effort to double its budget in the next few years. And he seconded Mr. Reagan's proposal to increase spending by the National Institutes of Health by 3.6 per cent.

The new President's budget, in general, was greeted with approval by college officials, who had been waiting to see how Mr. Bush would reconcile his campaign promises to increase spending on education and

Continued on Page A25

Critics and Defenders of Admission Tests Eye Court's Limit on Use

By JEAN EVANGELAUF

The use of college-admissions tests is undergoing new scrutiny in light of a federal judge's ruling that the New York State Education Department stop awarding merit scholarships solely on the basis of scores on the Scholastic Aptitude Test.

The ruling came this month in a lawsuit brought in November by 10 female high-school seniors and two women's groups, who charged the department with sex discrimination because of the way it awards $40-million a year in grants.

The average S.A.T. score of females is about 60 points lower than that of males, and the lawsuit said that using the scores had a "disparate impact" on females, who are less likely than males to receive scholarships.

In his opinion, Judge John M. Walker of the United States District Court in Manhattan ruled that the practice of relying only upon S.A.T. scores in awarding scholarships was discriminatory because it "deprives young women of the opportunity to compete equally for these prestigious scholarships in violation of both Title IX

Continued on Page A32

Math Professors Turn to Writing to Help Students Master Concepts of Calculus and Combinatorics

By JUDITH AXLER TURNER

When the United States sent a space probe out beyond the solar system, it attached a plaque inscribed with pictures and mathematical symbols and formulas, in the belief that such notations are a universal form of communication.

But back on earth, in the United States at any rate, mathematics professors are learning that English, not the language of mathematics, works best for most undergraduates.

Journals, Papers, and Essay Questions

"Students better understand the language of mathematics through a language in which they are already fluent," says Marcia Birken, an assistant professor of mathematics at the Rochester Institute of Technology.

Ms. Birken is one of a growing number of mathematics professors who are asking their students to keep journals, write papers, and answer essay questions on tests. They are adding reading and writing to arithmetic—not to mention calculus, discrete mathematics, topology, algebra, group theory, complex analysis, combinatorics, and statistics.

Some of the professors were pushed into requiring writing in their classes by "writing-across-the-curriculum" efforts at their colleges—attempts to reinforce writing skills by incorporating writing assignments into all courses. But most of those who are

Continued on Page A14

Practices of Scholarly Journals Come Under New Scrutiny

Journal editors are re-examining their roles because of concerns over science fraud and charges of bias in editorial decision making: Page A4.

MARGINALIA

We received an announcement from the U.S. Postal Service the other day, describing a workshop, to be held at San Francisco University, on improving campus postal operations.

The announcement was, as a note on its envelope pointed out, HAND DELIVERED.

■

The office of Child Care Services at the University of California at Irvine is presenting, on February 22, a workshop called "Communicating and Developing an Effective Relationship With Your Adolescence."

Thank goodness! (We had given up hope.)

■

Note on an order form from the American Hospital Association:

"Handling charges for all orders:

"Add $1.00 for all orders under $12.00. Add $225 for all orders $12.00 and over."

Everything costs a bit more, these days.

■

According to a flyer from Regis College, a professor from St. Michael's College, University of Toronto, with "doctorates in literature and in religious studies from Princeton, the University of London, and McMaster University," was to be on the Regis campus February 13 for a colloquium entitled:

HOW TO READ AND RIGHT:
DEALING WITH TEXTS
(OR: WHY STUDENTS—AND
FACULTY—CAN'T READ)

Physician, heal thyself.

■

But *we* should talk—given this passage in a recent "Sidelines" column in this newspaper:

"The ease with which people's opinions can be affected shows they don't completely understand the [National College Athletic Association's] rules and their potential affects, several association observers said."

Feelings run strong on some of them.

■

Item in the Marquette (Mich.) *Mining Journal*:

"MARQUETTE—Peggy A. Frazier, a member of the Ferris State University Board of Control, has been named chairwoman of a committee to search for a new university."

■

At the weekly meeting that the president of Rollins College holds with senior staff members, a participant listed the subjects to be covered in a personnel seminar.

Busy taking notes, the dean of the faculty asked later: "What was the fourth item in that seminar?" The answer: "Listening skills." [Laughter]

—C.G.

In Brief

Texas Tech U. Inoculates 4,500 in Measles Outbreak

An outbreak of red measles at Texas Tech University has led the institution to inoculate 4,500 students living on its campus.

Health officials reported about 100 cases of red measles at the university. The first appeared on January 31, and by February 3, the tally had reached 96, said Margaret M. Simon, a university spokeswoman.

Although the outbreak appeared to be under control last week, Ms. Simon said the campus is preparing for the possibility of a "second wave" of cases, since the incubation time is eight to ten days.

Meanwhile, one confirmed case of measles at the University of North Carolina at Chapel Hill triggered mass inoculations there last week.

Clerical Workers Strike at Adelphi University

Clerical workers at Adelphi University have gone on strike, demanding higher wages and better medical benefits.

The 276-member union affiliated with the Office and Professional Employees Union called the strike after seven months of negotiations with the university failed to produce a contract.

Officials at the university said student registration for the spring semester and other campus operations handled largely by the striking employees had not been disrupted.

A spokeswoman for the union, which was formed last spring, said its members were seeking a 12-per-cent raise over a two-year period. She said the union was also concerned with pay equity among its members.

A university official said the administration had offered the clerical workers—most of whom are women—a 17-per-cent raise over three years.

EPA Fines 4 Institutions in Maryland for Violations

The Environmental Protection Agency is asking four Maryland colleges to pay $700,000 in fines for what the agency said were violations of the regulations that guide the use of equipment containing polychlorinated biphenyls, or PCB's.

Agency officials announced the following penalties: Goucher College, $33,800; the Johns Hopkins University, $280,000; Morgan State University, $254,000; and Washington College, $150,000.

Inspections conducted at the four institutions in late 1987 and early 1988 found that they had failed to maintain records, conduct inspections, and register transformers containing PCB's with local fire officials. At no time were students exposed to PCB's at any of the institutions, agency officials said.

When the agency inspected the four institutions again, it found the problems had been corrected.

Officials at the colleges and the agency said all four institutions planned to appeal the fines.

AAU Admits 2 New Members

WASHINGTON

Rutgers University and the State University of New York at Buffalo last week became members of the Association of American Universities, an organization of leading research universities.

"Each of these universities is a dynamic institution making significant contributions not only in education but also in strengthening the nation's vital research base," said Robert M. Rosenzweig, president of the 89-year-old association.

The Washington-based organization is made up of 56 American universities and two Canadian universities that have been judged to have strong research programs and strong graduate and professional education programs.

The addition of Rutgers and Buffalo, the first new members since 1985, brings to 29 the number of public universities in the association. —T.J.D.

Recruiting Group Urges Blacks to Avoid Wis. Colleges

MILWAUKEE

A new college-recruiting association based here is encouraging black students in Wisconsin to attend traditionally black colleges and avoid the predominantly white campuses of the University of Wisconsin system, Marquette University, and other local institutions.

The Black College Recruitment Association, based in Milwaukee, was formed by a group headed by Matthew C. Stelly, editor of the Milwaukee *Courier*, a black newspaper. In an interview, Mr. Stelly said the association had begun a campaign, called "Divest Black Students From Wisconsin Colleges," to protest racism at the predominantly white institutions.

Initially, he said, the group's goal was to provide black youths at area high schools and at two-year colleges with information about historically black colleges. But, he added, after several "overtly racist" incidents at the University of Wisconsin and other campuses, the association adopted "a new emphasis."

MILWAUKEE COURIER

Matthew Stelly: "Go to a black college for your undergraduate degree, where you can be educated by blacks."

College Festival Planned

Mr. Stelly said the group's message to black students was: "Don't go to the University of Wisconsin or Marquette until they get their act together. Go to a black college for your undergraduate degree, where you can be educated by blacks."

Last month the association's first college-recruitment day attracted about 50 students and their parents. The group is planning a Black Colleges Festival to be held this month.

A spokesman for the University of Wisconsin system said the association's campaign would not harm the institution's plan to increase minority recruitment and retention at its campuses. The plan, "Design for Diversity," was announced last year.

"To the extent that they are trying to encourage students to go to college, who might possibly not go otherwise, that's a positive thing," said James E. Sulton, special assistant for minority affairs to the system's president.

"But to the extent that they are trying to encourage students not to attend our institution, that is a negative goal, and not one that I find promising."

The university system and its individual campuses began aggressive recruitment and retention campaigns in the past year. At the University of Wisconsin at Madison, Chancellor Donna E. Shalala introduced new financial-aid programs and other efforts to increase minority enrollment.

Stigmatization Feared

Mr. Stelly's association has criticized many of those efforts and said such financial-aid programs may stigmatize black students, causing them to be seen by white students as receiving preferential treatment.

Mr. Sulton said the university's efforts had been given short shrift by the association. "We've been sensitive to concerns that black students would be resented for getting special programs."

Paul M. McInerny, a spokesman for Marquette University, said it would continue its efforts to recruit minority students, despite the association's campaign.

"We have a good educational-opportunities program here for minorities and disadvantaged students that we think is a model in this country," said Mr. McInerny.

"I would hope the association doesn't hurt our recruiting efforts," he added. "I don't think it will, partly because of the cost factor—many students can't afford to go out of state."

Mr. Stelly said that if black students were determined to go to Marquette, the University of Wisconsin, or other local colleges, his association would not try to dissuade them. —DENISE K. MAGNER

Blast Near Carroll College Causes Extensive Damage

An explosion last week caused extensive damage to buildings at Montana's Carroll College.

No serious injuries were reported in the blast, but damage to buildings was estimated to be in the millions of dollars.

The explosion occurred when 48 railroad cars went out of control as workers tried to replace a locomotive. The train rolled nine miles into Helena, Mont., where it collided with a three-locomotive unit on tracks at the edge of the college's campus.

Large pieces of debris, including three-foot-long parts of railroad cars, crashed through the roofs of several campus buildings.

"Every building at the college was damaged to some extent," said Francis J. Kerins, Carroll's president.

About 2,000 students and residents of nearby neighborhoods were evacuated in minus-36-degree weather. Electricity was lost to the college and half the [illegible]

Classes were suspended for a week.

Syracuse Plans Memorial to Students in Air Crash

Syracuse University plans to build a memorial to the 35 students killed in last December's crash of Pan American World Airways Flight 103.

A semicircular limestone wall will be built at the main entrance to the university. It will feature a band of granite in which the names of the students will be engraved.

The victims—25 Syracuse students and 10 students from other institutions—were returning home after a semester in London.

University funds will be used to pay for the $500,000 memorial, which is expected to be completed by fall.

First Woman Is Named to Harvard Corporation

After 339 years of all-male membership, the Harvard Corporation has named Judith Richards

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Administrators' Pay Up 5.3 Pct. in Year, Outpacing Inflation

Continued from Page A1

been subject to lean years as well as prosperous ones. From 1979 to 1983, for example, the increases at public or private institutions—and sometimes at both—failed to keep up with inflation. Over all, however, salary increases have grown at about the same rate as inflation over the past 11 years, according to an analysis by CUPA. Administrators' raises averaged 6.2 per cent a year during that period, while the national inflation rate averaged 6.3 per cent a year.

Salaries for Professors

Faculty salaries, by comparison, outpaced inflation in the past seven years, according to the annual survey conducted by the American Association of University Professors. The A.A.U.P.'s survey for the current academic year has not yet been released.

To allow institutions to make more precise comparisons between administrators' and faculty members' salary patterns, the new CUPA survey breaks salary information down into the same percentage ranges used in the A.A.U.P. survey, noted John M. Toller, personnel director at the University of Connecticut and one of the authors of the survey report. "By allowing easier comparison with faculty salaries, we're able to look at the whole [professional] employee population," he said.

The association's *1988-89 Administrative Compensation Survey* includes data on 168 job categories at 1,268 institutions. To provide for more accurate comparisons, the data are broken down by type of institution and by budget size. This year's 130-page publication includes two new job categories—director of enrollment management and director of minority affairs.

Among other survey findings:

- When all types of institutions were considered, four categories of administrator earned median salaries that topped the $100,000 mark, compared to only one category in the previous year. The four included dean of medicine, where the median salary for all institutions was $143,200; hospital medical-center administrator, $109,700; dean of dentistry, $103,629; and dean of law $100,500.

Mr. Toller speculated that salaries and raises for those positions reflected market demand.

When salary information was broken down to reflect different types of institution and budget size, however, there were additional job categories in which salaries topped $100,000.

- Many of the job categories in which generous salary increases were reported in academic 1988-89 received smaller increases the previous year. Conversely, administrators who did well in 1987-88 averaged smaller increases in the current academic year. For example, the latest survey found that engineering deans at all institutions had received a 2.6-per-cent salary increase, compared with 8.1 per cent the previous year.

That, Mr. Toller said, is because institutions target different job categories for raises each year. So salary trends for a particular job must be analyzed over several years.

- Among the administrators receiving generous salary increases were chief executives of systems, who earned median salaries of $95,242 and received raises averaging 12 per cent. The previous year, system heads on average received no salary increase.

Chief academic officers earned median salaries of $62,000 and received raises averaging 9.1 per cent.

- Salaries for women and minority-group members continued to lag behind those of white males, but the fact that many female and minority administrators had spent less time in their positions helped account for some of the discrepancy. For example, salaries of minority administrators were, on average, 9 per cent lower than those of non-minority employees, but minority administrators had spent an average of 16 per cent less time in those jobs. Female administrators' salaries were, on average, 39 per cent lower than those for their male counterparts, but women had spent an average of 67-per-cent less time in those positions.

Copies of the *1988-89 Administrative Compensation Survey* are available from the College and University Personnel Association, 1233 20th Street, N.W., Suite 503, Washington 20036; (202) 429-0311. The price is $55 for CUPA members, $140 for non-members that participated in the survey, and $250 for all other non-members. The association also does custom-tailored salary studies for institutions that want to make comparisons with peer institutions.

Data from the CUPA survey of second-level administrators will appear in a future issue of *The Chronicle*.

Median Salaries of Chief Executive and Academic Officers for 1988-89

Type of institution by size of budget	Chief executive officer	Chief academic officer
Doctoral		
Up to $106-million	$107,000	$89,165
$106.1-million to $192.5-million	115,000	91,000
$192.6-million to $295.7-million	113,000	102,585
$295.8-million or more	126,225	114,500
Comprehensive		
Up to $21-million	$82,000	$61,800
$21.1-million to $32.9-million	90,000	70,391
$33-million to $54-million	89,700	73,500
$54.1-million or more	105,500	85,700
Baccalaureate		
Up to $6.5-million	$60,057	$44,290
$6.6-million to $10.7-million	75,083	53,000
$10.8-million to $17.1-million	84,423	60,000
$17.2-million or more	97,000	68,400
Two-year		
Up to $4.9-million	$58,000	$42,000
$5-million to $8.6-million	59,287	51,000
$8.7-million to $14.8-million	72,600	55,511
$14.9-million or more	80,250	62,848

SOURCE: COLLEGE AND UNIVERSITY PERSONNEL ASSOCIATION

FACT FILE: Median Salaries of Administrators, 1988-89

	All institutions	1-year change	Doctoral	Comprehensive	Baccalaureate	2-year
Executive						
Chief executive of a system	$95,242	+12.0%	$115,000	$98,495	$84,000	$75,000
Chief executive of a single institution	80,000	+7.4%	122,000	90,000	79,500	69,000
Executive vice-president	68,000	+9.7%	95,200	70,000	58,092	59,547
Academic						
Chief academic officer	62,000	+9.1%	98,004	73,000	56,400	53,573
Chief health-professions officer	70,000	+3.7%	121,000	—	30,000	45,315
Director, library services	41,561	+8.9%	73,000	49,045	34,000	37,208
Director, institutional research	42,700	+6.7%	54,768	45,000	35,000	40,449
Director, educational-media services	32,201	+6.3%	46,900	34,537	24,500	33,413
Director, learning-resources center	36,438	+5.6%	47,532	38,124	27,000	38,880
Director, international studies	44,032	+8.7%	53,004	42,600	32,385	—
Director, computer center, academic	43,000	+8.8%	66,022	43,892	36,333	38,670
Administrator, grants and contracts	42,350	+2.7%	57,550	40,000	29,500	37,136
Dean, architecture	76,400	+9.1%	80,850	—	—	—
Dean, agriculture	75,000	+5.6%	92,400	—	51,000	45,453
Dean, arts and letters	55,816	+8.4%	85,800	62,520	41,400	47,032
Dean, arts and sciences	60,732	+3.2%	86,000	64,094	51,510	47,061
Dean, business	60,050	+5.2%	92,703	68,760	48,167	44,990
Dean, communications	55,303	+9.4%	82,360	—	34,538	46,055
Dean, continuing education	46,680	+3.4%	68,600	52,950	37,450	43,304
Dean, dentistry	103,629	+6.9%	105,791	—	—	—
Dean, education	60,192	+4.7%	79,980	61,300	41,350	44,417
Dean, engineering	76,008	+2.6%	94,954	76,080	48,720	47,955
Dean, extension	52,860	+10.8%	82,480	56,350	27,810	43,675
Dean, fine arts	53,573	+2.5%	76,608	60,000	41,300	44,161
Dean, graduate programs	61,509	+3.3%	79,996	59,580	42,000	—
Dean, health-related professions	54,704	+5.2%	79,000	63,799	45,266	46,229
Dean, home economics	65,120	+8.5%	76,800	—	—	—
Dean, humanities	47,250	+5.5%	87,400	57,000	36,337	46,646
Dean, instruction	52,000	+7.6%	—	—	48,000	52,473
Dean, law	100,500	+5.8%	109,512	99,000	71,821	—
Dean, library and information sciences	60,274	+8.6%	73,500	53,776	—	—
Dean, mathematics	47,500	+10.7%	—	50,300	37,800	45,253
Dean, medicine	143,200	+19.3%	158,220	—	—	—
Dean, music	57,000	+5.4%	82,000	57,000	38,900	—
Dean, nursing	52,917	+0.7%	80,000	59,500	40,800	42,140
Dean, pharmacy	83,500	+7.7%	90,000	—	—	—
Dean, public health	95,299	+1.2%	—	—	—	—
Dean, sciences	51,905	+8.8%	94,428	62,370	41,721	46,026
Dean, social sciences	47,549	+6.6%	91,600	63,347	37,561	45,429
Dean, social work	68,500	+3.6%	80,250	61,454	36,441	—
Dean, special programs	42,042	+4.7%	—	49,613	40,000	41,443
Dean, undergraduate programs	52,356	+0.7%	70,000	52,356	44,000	—
Dean, veterinary medicine	92,340	+7.4%	93,720	—	—	—
Dean, vocational education	49,688	+5.1%	72,605	56,327	50,700	47,239
Administrative						
Chief business officer	58,187	+8.8%	87,700	68,500	53,000	50,762
Chief administration officer	60,200	n/a	81,113	66,976	47,547	48,277
Chief financial officer	53,000	n/a	76,751	57,165	46,642	46,800
Chief planning officer	55,000	+5.1%	62,000	52,759	48,828	52,641
Chief budget officer	48,275	+3.7%	56,320	45,280	40,000	40,442
Chief planning and budget officer	59,080	+6.4%	74,381	53,721	47,172	—
General counsel	63,410	+8.5%	72,391	58,000	45,674	—
Chief personnel and human-resources officer	44,000	+5.9%	61,100	44,321	33,600	42,000
Director, affirmative action & equal employment	42,540	+3.3%	48,000	39,492	32,900	39,508
Director, personnel and affirmative action	36,274	+2.9%	—	38,600	30,912	39,505
Director, computer center	45,563	+8.0%	67,100	52,140	37,500	39,450
Director, computer center, administrative	42,000	+0.5%	59,000	44,500	32,860	36,858
Director, information systems	50,000	+5.7%	61,000	49,500	38,230	47,599
Chief physical-plant officer	42,432	+11.7%	64,175	47,615	35,800	37,000
Comptroller	43,600	+6.3%	66,000	47,200	36,644	38,000
Director, accounting	35,304	+4.4%	47,100	35,516	28,600	31,437
Bursar	32,000	+3.1%	42,000	32,500	24,720	26,172
Director, purchasing	34,008	+4.7%	46,550	33,897	27,775	30,108
Director, bookstore	26,000	+8.4%	42,851	29,800	21,300	22,655
Director, internal audit	41,700	+5.3%	52,860	36,792	31,000	34,613
Director, auxiliary services	42,161	+3.1%	57,000	41,900	34,350	36,813
Director, campus security	31,800	+6.0%	45,208	33,926	24,600	28,668
Director, risk management and insurance	44,486	+4.5%	48,120	36,500	—	—
Administrator, hospital medical center	109,700	+14.0%	122,000	—	—	—
External affairs						
Chief development officer	54,000	+9.1%	76,962	60,000	50,000	41,221
Chief public-relations officer	37,550	+7.3%	60,000	42,462	30,840	33,400
Chief development and public-relations officer	60,010	+9.1%	88,541	63,587	49,650	39,900
Director, alumni affairs	31,080	+5.3%	50,000	32,796	27,000	24,600
Director, development and alumni affairs	42,350	+9.8%	62,616	42,935	39,705	35,148
Director, special and deferred gifts	40,000	+9.9%	52,500	43,000	33,800	—
Director, church relations	30,000	+11.6%	—	37,637	27,739	—
Director, community services	38,587	+5.6%	45,050	36,000	27,000	38,737
Director, publications	31,502	+4.0%	41,695	32,000	26,000	29,500
Director, information office	33,350	+6.7%	49,850	33,600	25,400	32,067
Director, news bureau	28,932	+3.3%	36,414	28,000	24,500	—
Student services						
Chief student-affairs officer	50,256	+6.6%	75,000	59,076	42,000	47,508
Director, admissions	39,500	+7.3%	55,650	43,299	36,180	35,500
Director, admissions and registrar	44,144	+5.6%	60,753	48,654	38,678	42,400
Registrar	35,400	+6.2%	51,600	38,640	31,100	32,448
Director, admissions and financial aid	43,548	+1.5%	—	49,104	44,000	35,000
Director, student financial aid	34,032	+5.6%	48,908	38,208	29,326	32,437
Director, food services	35,366	+8.8%	48,000	35,300	33,000	25,480
Director, student housing	30,625	+6.8%	49,000	33,500	24,200	26,000
Director, housing and food services	52,536	+8.6%	65,000	—	—	—
Director, foreign students	31,400	+5.0%	38,000	28,896	25,890	—
Director, student union	36,936	+8.2%	45,972	36,936	27,433	34,956
Director, student activities	28,530	+4.4%	39,510	31,229	23,100	30,066
Director, student placement	32,404	+8.0%	43,900	35,060	26,360	31,752
Director, student counseling	38,100	+9.5%	49,655	39,000	29,670	40,016
Director, student health services, physician	65,556	+3.5%	77,000	60,000	30,000	—
Director, student health services, nurse	25,524	+7.8%	35,368	28,044	20,840	27,025
Director, campus ministries	28,172	n/a	45,000	29,306	26,780	18,540
Director, athletics	44,350	+7.5%	74,500	50,685	37,450	37,575
Men's	42,034	+0.3%	—	44,414	37,000	—
Women's	32,600	−0.8%	45,531	34,000	27,555	—
Director, sports information	24,670	n/a	31,929	25,157	19,837	—
Director, campus recreation and intramurals	29,150	+4.6%	40,296	28,632	22,674	26,250
Director, enrollment management	44,168	n/a	—	53,000	40,000	31,000
Director, minority affairs	33,800	n/a	39,150	31,000	31,000	32,000

A dash indicates insufficient data.

SOURCE: COLLEGE AND UNIVERSITY PERSONNEL ASSOCIATION

Endowments Up Only 1.3 Pct. in Year, Ending Several Years of Big Increases

Continued from Page A27

the shifts in investments occurred before or after the market crash was not known.

One college registered a 17.4-per-cent return, while one at the other extreme had a 14.7-per-cent loss. The report did not disclose the identities of colleges to match the performance data.

The 1.3-per-cent overall return exceeded the Standard & Poor's index of 500 common stocks, which dropped 7.1 per cent in the period covered by the report.

The endowment return, however, fell short of two other measures, the 7.5-per-cent positive return of the Shearson Lehman Hutton Government/Corporate Bond index and the 6-per-cent return of 91-day Treasury Bills.

Loss in Purchasing Power

Adjusted for inflation, college endowments actually lost 2.4 per cent of their value in terms of purchasing power.

NACUBO, a national association of campus business and financial officers, has released the annual endowment survey every year since 1974. The study now includes most of the four-year colleges and universities with endowments of at least $1-million, officials of the association say.

For 1987-88, Cambridge Associates, a research company that advises colleges on investment managers, conducted the study.

A preliminary report of the study indicated that college endowments had grown by only 0.2 per cent (*The Chronicle*, December 14, 1988). The difference between growth rates in the preliminary and final versions of the study was due to the fact that the preliminary results examined the largest endowments, which grew at a slower rate than medium and small-sized funds, association officials said.

Wealth Is Concentrated

More than 95 institutions had endowments of $100-million or more, the study found, and all of the top 10 endowments were above the $1-billion mark.

Other findings of the survey:

- Of any investment, leveraged buyouts had the highest return, earning 20 per cent for the 21 institutions with assets in that area. Next highest were mortgage real estate, with a 10.7-per-cent return, and foreign bonds, with a 9.7-per-cent growth rate. Venture-capital projects had the worst rate of return, a negative 15.9 per cent. Domestic common stocks lost 7 per cent during the period.
- Endowment wealth was highly concentrated, with 25 institutions that have endowments of $400-million or more controlling 56 per cent, or $27.9-billion, of the total. The 94 smallest endowments, with assets of $25-million or less, totaled only $1.4-billion, or 2.8 per cent of the total endowment wealth.
- Despite the market tumble, colleges actually reduced their "spending rates"—the amount of endowment they spend for operating purposes. Public institutions spent 4.6 per cent of their endowments in 1987-88, compared with 5.3 per cent in 1986-87, while private colleges spent 4.8 per cent, compared with 5.6 in 1986-87.

A summary of the report on the study appears in the February issue of *Business Officer*, NACUBO's monthly magazine.

Copies of the complete report are available for $50 each, prepaid, for members of the association and $75 for others, from NACUBO at P.O. Box 91600, Washington 22090-1600.

Total Return* on Endowments, Fiscal 1988

—	Periods ending June 30, 1988 1 year	3 years	5 years	10 years
All investment pools	+1.3%	+13.1%	+12.1%	+13.4%
By size				
$25-million and under	+1.5%	+12.0%	+11.2%	+12.2%
$25-million to $100-million	+1.3%	+13.3%	+12.1%	+13.1%
$100-million to $400-million	+0.8%	+13.6%	+12.5%	+14.1%
$400-million or more	+0.5%	+14.9%	+13.6%	+15.0%
By type of institution				
Public	+1.5%	+12.7%	+11.9%	+12.8%
Private	+1.2%	+13.3%	+12.2%	+13.6%
Comparative measurements				
Standard & Poor's 500 Index	−7.1%	+16.4%	+14.5%	+16.1%
Wilshire 5000 Stock Index	−6.0%	+15.2%	+12.8%	+16.4%
Shearson Lehman Hutton Government / Corporate Bond Index	+7.5%	+10.7%	+12.2%	+10.8%
Shearson Lehman Hutton Government Bond Index	+7.2%	+10.4%	+11.9%	+11.1%
Consumer Price Index	+3.8%	+2.9%	+3.2%	+5.9%

* Total-return rates represent change in market value, plus dividends and interest, for periods ending June 30, 1988, based on data for investment pools at 280 colleges and universities.

SOURCE: NATIONAL ASSOCIATION OF COLLEGE AND UNIVERSITY BUSINESS OFFICERS

New Publications on Philanthropy

BOOKS

Designs for Fund-Raising, by Harold J. Seymour (Fund-Raising Institute, Box 365, Ambler, Pa. 19002-0365; 220 pages; $29.95, plus $2.50 for shipping). An updated version of one of the first "how-to" textbooks on fund raising, originally published in 1966.

SPECIAL REPORTS

AIDS Funding: A Guide to Giving by Foundations and Charitable Organizations, edited by John Clinton (The Foundation Center, 79 Fifth Avenue, New York 10003; 133 pages; $75). Contains an analysis of grants awarded for AIDS projects, with information on grantmaking by foundations, corporations, and charitable organizations outside the United States.

American Grantmaking in South Africa: A Conference Report, prepared by Michael R. Sinclair and Janet L. Place. (Council on Foundations, 1828 L Street, N.W., Washington 20036; 48 pages; free). Discusses American grantmaking in South Africa, with essays written by Americans and South Africans.

Council on Foundations: 1988 Foundation Management Report, (Council on Foundations, 1828 L Street, N.W., Washington 20036). Includes information on compensation, benefits, personnel policies, and other foundation-management issues.

Study of Cause-Related Marketing, by Sheridan Associates and Zimmerman Associates (Independent Sector, 1828 L Street, N.W., Washington 20036; 60 pages; $10). Discusses cause-related marketing, attitudes toward the practice, and ways to improve its effectiveness.

ANNUAL REPORTS

Citizens' Scholarship Foundation of America, (1505 Riverview Road, P.O. Box 297, St. Peter, Minn. 56082). For the fiscal year ending June 30, 1988. Assets: $10-million. Scholarship Awards: $9.9-million.

The Charles Stewart Mott Foundation, (1200 Mott Foundation Building, Flint, Mich. 48502-1851). For the fiscal year ending December 31, 1987. Assets: $750-million. Grant payments: $32-million.

The Hitachi Foundation, (1509 22nd Street, N.W., Washington 20037). For the fiscal year ending March 31, 1988. Assets: $22-million. Grant payments: $1-million.

W. K. Kellogg Foundation, (400 North Avenue, Battle Creek, Mich. 49017-3398). For the fiscal year ending August 31, 1988. Assets: $3.1-billion. Grant payments: $122-million.

FACT FILE: Value of 315 Endowments on June 30, 1988

1988 rank	Institution	Market value June 30, 1987	June 30, 1988
1	Harvard University	$4,018,270,000	$4,155,778,000
2	University of Texas System	2,829,000,000	2,779,796,000
3	Princeton University	2,291,110,000	2,308,073,000
4	Yale University	2,098,400,000	2,055,871,000
5	Stanford University [1]	1,676,950,000	1,552,025,000
6	Columbia University	1,387,060,000	1,374,608,000
7	Texas A&M University System	1,214,220,000	1,178,641,000
8	Washington University	1,199,930,000	1,141,302,000
9	Massachusetts Institute of Technology	1,169,740,000	1,139,101,000
10	University of California	1,122,160,000	1,051,384,000
11	University of Chicago	913,600,000	897,826,000
12	Rice University	857,155,000	873,149,000
13	Northwestern University	802,670,000	827,341,000
14	Emory University	798,549,000	772,655,000
15	Cornell University	725,096,000	716,606,000
16	University of Pennsylvania	648,528,000	664,637,000
17	Dartmouth College	537,272,000	570,616,000
18	University of Rochester	556,908,000	535,807,000
19	New York University	503,957,000	521,686,000
20	Johns Hopkins University	534,809,000	508,399,000
21	Rockefeller University	542,765,000	503,283,000
22	Vanderbilt University	508,522,000	499,064,000
23	University of Notre Dame	456,099,000	463,502,000
24	California Institute of Technology	406,946,000	429,736,000
25	University of Southern California	401,171,000	403,685,000
26	University of Virginia	396,329,000	396,692,000
27	Duke University	363,706,000	392,893,000
28	Brown University	347,520,000	371,100,000
29	University of Michigan	287,539,000	346,337,000
30	Case Western Reserve University	341,160,000	331,183,000
31	Wellesley College	298,000,000	315,886,000
32	University of Delaware	293,033,000	301,224,000
33	Smith College	299,625,000	294,522,000
34	Southern Methodist University	301,732,000	293,119,000
35	Williams College	262,588,000	279,703,000
36	Swarthmore College	276,019,000	273,467,000
37	Grinnell College	226,783,000	270,658,000
38	Carnegie Mellon University	265,893,000	265,664,000
39	Wake Forest University	226,072,000	258,833,000
40	George Washington University	216,253,000	251,502,000
41	University of Cincinnati	254,300,000	250,248,000
42	Ohio State University	241,527,000	247,932,000
43	Wesleyan University	258,130,000	245,007,000
44	University of Richmond	228,761,000	242,289,000
45	Amherst College	248,354,000	242,243,000
46	University of Tulsa [3]	41,982,000	242,076,000
47	Pomona College	232,675,000	241,909,000
48	University of Pittsburgh	222,125,000	229,469,000
49	University of Minnesota	243,089,000	227,210,000
50	Loyola University of Chicago	231,739,000	225,947,000
51	Berea College	225,938,000	219,860,000
52	Baylor University [3]	219,802,000	217,684,000
53	Georgetown University	203,092,000	216,487,000
54	Vassar College	224,351,000	211,503,000
55	Oberlin College	203,673,000	203,600,000
56	Boston College [3]	176,394,000	200,153,000
57	Middlebury College	198,335,000	197,563,000
58	Tulane University	213,198,000	197,099,000
59	Lehigh University	181,259,000	192,834,000
60	Rensselaer Polytechnic Institute	190,835,000	184,164,000
61.	Lafayette College	$170,406,000	$176,265,000
62.	Kansas U. Endowment Association	144,662,000	172,342,000
63.	University of Florida Foundation	160,450,000	170,560,000
64.	Thomas Jefferson University	158,154,000	169,628,000
65.	Mount Holyoke College	151,916,000	153,065,000
66.	Georgia Institute of Technology	not reported	150,239,000
67.	Carleton College	144,190,000	142,946,000
68.	Pennsylvania State University	130,980,000	142,888,000
69.	Boston University	159,192,000	142,483,000
70.	Saint Louis University	140,883,000	141,317,000
71.	Bowdoin College	not reported	133,039,000
72.	University of North Carolina-Chapel Hill	127,282,000	132,154,000
73.	Rochester Institute of Technology	135,656,000	130,853,000
74.	Syracuse University	128,400,000	130,205,000
75.	Occidental College	126,709,000	130,005,000
76.	Academy of the New Church	124,606,000	127,984,000
77.	University of Nebraska	144,946,000	127,616,000
78.	Brandeis University	127,600,000	126,571,000
79.	Washington State University	119,986,000	123,205,000
80.	State University of New York	130,191,000	122,051,000
81.	Mount Sinai School of Medicine	115,733,000	121,207,000
82.	University of Minnesota Foundation	not reported	118,494,000
83.	University of Washington	101,550,000	117,517,000
84.	University of Alabama System [2]	75,816,000	117,041,000
85.	University of Miami [3]	112,094,000	115,313,000
86.	University of Missouri	107,628,000	115,048,000
87.	Trinity College (Conn.)	115,324,000	114,230,000
88.	Tufts University	110,795,000	112,201,000
89.	Bryn Mawr College [3]	109,922,000	109,424,000
90.	Colorado College	113,102,000	109,159,000
91.	University of Wisconsin Foundation	86,113,000	109,092,000
92.	Colgate University	104,313,000	107,174,000
93.	Earlham College	111,304,000	106,601,000
94.	Whitman College	90,295,000	104,624,000
95.	American University of Beirut	110,717,000	104,224,000
96.	Rutgers University	105,040,000	104,072,000
97.	University of Illinois Foundation	102,309,000	102,908,000
98.	Hamilton College	103,190,000	99,713,000
99.	Cranbrook Educational Community	102,371,000	98,848,000
100.	Southwestern University	101,406,000	97,299,000
101.	Agnes Scott College	85,118,000	95,633,000
102.	Washington and Lee University	93,400,000	90,527,000
103.	Cooper Union	not reported	90,052,000
104.	Loyola Marymount University	66,931,000	89,483,000
105.	Worcester Polytechnic Institute	78,320,000	89,161,000
106.	University of Wisconsin System	89,811,000	88,393,000
107.	Mercer University	75,747,000	85,803,000
108.	Union College (N.Y.)	87,063,000	85,547,000
109.	University of the South	80,736,000	85,179,000
110.	Virginia Military Institute Foundation	78,633,000	84,768,000
111.	Virginia Tech Foundation	83,177,000	82,600,000
112.	Radcliffe College	85,985,000	80,514,000
113.	Claremont McKenna College	83,743,000	80,441,000
114.	Bucknell University	82,394,000	80,293,000
115.	University of Georgia and Foundation	not reported	80,063,000
116.	Butler University [3]	85,213,000	79,999,000
117.	University of Tennessee System	69,531,000	78,020,000
118.	Santa Clara University	79,794,000	76,696,000
119.	College of Saint Thomas	not reported	76,318,000
120.	St. Lawrence University	71,580,000	71,888,000

Note: Table includes 315 institutions participating in the comparative-performance study by the National Association of College and University Business Officers.

[1] As of August 31, 1988
[2] As of September 30, 1988
[3] As of May 31, 1988
[4] As of April 30, 1988
[5] As of July 31, 1988

Continued on Following Page

FACT FILE: Value of 315 Endowments—Continued

1988 rank	Institution	Market value June 30, 1987	Market value June 30, 1988
121	De Pauw University	not reported	$71,316,000
122	Hampton University	75,860,000	71,201,000
123	Haverford College	73,792,000	71,195,000
124	Franklin and Marshall College	61,164,000	70,593,000
125	Rhodes College	69,711,000	67,498,000
126	Pepperdine University [5]	65,091,000	67,460,000
127	Davidson College	66,931,000	66,906,000
128	Willamette University [3]	65,801,000	66,153,000
129	Colby College	68,540,000	66,105,000
130	University of Vermont	65,408,000	65,562,000
131	Lawrence University	60,867,000	65,387,000
132	Reed College	67,942,000	63,993,000
133	Furman University [3]	53,691,000	62,792,000
134	Kansas State University Foundation	not reported	62,699,000
135	College of Wooster	60,221,000	61,740,000
136	Mills College	not reported	60,133,000
137	Marquette University	57,376,000	59,534,000
138	College of William and Mary	56,157,000	59,342,000
139	Denison University	59,035,000	59,178,000
140	Simmons College	59,130,000	57,388,000
141	Ohio University	54,640,000	55,558,000
142	Berry College	63,442,000	55,151,000
143	University of Kentucky	not reported	54,986,000
144	Austin College	51,122,000	52,793,000
145	Indiana University	46,251,000	52,784,000
146	Goucher College	51,813,000	52,223,000
147	Fordham University	55,821,000	51,472,000
148	Harvey Mudd College	50,550,000	50,904,000
149	University of Nevada System	45,208,000	49,857,000
150	Ithaca College	49,056,000	49,490,000
151	University of Colorado Foundation	43,569,000	49,367,000
152	Scripps College	49,308,000	49,134,000
153	Auburn University [2]	47,987,000	48,955,000
154	Barnard College	not reported	48,739,000
155	University of California-Los Angeles Foundation	not reported	48,225,000
156	Rhode Island School of Design	51,600,000	47,949,000
157	Temple University	46,649,000	47,692,000
158	Virginia Commonwealth University	42,987,000	47,639,000
159	University of Arizona	48,080,000	47,371,000
160	Teachers College, Columbia University [1]	51,586,000	46,848,000
161	Philadelphia College of Pharmacy and Science	49,978,000	46,562,000
162	Albion College	43,059,000	46,211,000
163	University of Maryland	46,390,000	45,924,000
164	Michigan State University	not reported	45,552,000
165	Bentley College	37,189,000	45,096,000
166	Sweet Briar College	44,813,000	43,978,000
167	Spelman College	47,689,000	43,936,000
168	Allegheny College	39,906,000	43,836,000
169	Oregon State Board of Higher Education	41,049,000	43,548,000
170	Hendrix College [5]	46,367,000	42,868,000
171	University of Dayton	42,786,000	42,574,000
172	University of Hawaii	24,027,000	42,514,000
173	University of Denver	not reported	41,378,000
174	Centre College of Kentucky	42,031,000	40,797,000
175	Hartwick College	40,655,000	40,470,000
176	University of Illinois	39,856,000	39,186,000
177	Dickinson College	39,558,000	39,146,000
178	University of Puget Sound [1]	38,408,000	38,707,000
179	Arkansas College	not reported	38,497,000
180	Oregon Health Sciences U. Foundation	38,004,000	38,376,000
181	Randolph-Macon Woman's College	34,900,000	37,767,000
182	Alma College	37,623,000	37,714,000
183	Valparaiso University	35,546,000	37,563,000
184	North Carolina State University	33,603,000	37,522,000
185	Transylvania University	36,600,000	37,389,000
186	Baldwin-Wallace College	36,282,000	36,809,000
187	Birmingham-Southern College	36,334,000	36,684,000
188	Clarkson University	37,325,000	35,584,000
189	Wentworth Institute of Technology	not reported	35,446,000
190	Clark University [3]	36,507,000	35,103,000
191	Creighton University	33,087,000	34,810,000
192	Wheaton College (Mass.)	36,070,000	34,730,000
193	Kalamazoo College	33,169,000	34,499,000
194	Clemson University	30,734,000	33,513,000
195	Connecticut College	33,746,000	31,685,000
196	Buena Vista College	32,410,000	31,630,000
197	University of Mississippi	21,950,000	31,481,000
198	Louisville Presbyterian Theological Seminary [3]	not reported	30,096,000
199	Wayne State University	27,294,000	29,901,000
200	Washington and Jefferson College	31,777,000	29,864,000
201	Rider College	28,522,000	29,372,000
202	Gettysburg College [3]	30,914,000	29,200,000
203	Texas Tech University [1]	27,366,000	28,585,000
204	Seattle University	26,789,000	28,190,000
205	University of Akron	22,503,000	27,762,000
206	University of San Francisco [3]	23,774,000	27,603,000
207	Skidmore College	26,343,000	27,547,000
208	St. Olaf College [3]	27,071,000	27,398,000
209	Washburn Endowment Association	25,468,000	26,864,000
210	Lake Forest College [3]	21,926,000	26,762,000
211	Drake University [3]	19,857,000	26,411,000
212	Bryant College	28,196,000	26,110,000
213	Norwich University	25,740,000	25,994,000
214	Hahnemann University	17,824,000	25,946,000
215	DePaul University	25,468,000	25,831,000
216	Oregon State University Foundation	not reported	25,705,000
217	Loyola College (Md.)	25,130,000	25,642,000
218	Juniata College	21,032,000	25,398,000
219	Muhlenberg College	26,287,000	25,396,000
220	Illinois College	21,787,000	25,263,000
221	Chapman College [3]	$24,917,000	$25,144,000
222	University of Oregon Foundation	22,364,000	24,958,000
223	California Institute of the Arts	25,500,000	24,500,000
224	University of Maine System	22,289,000	23,991,000
225	Knox College	23,440,000	23,809,000
226	University of South Florida	16,442,000	23,446,000
227	Miami University	22,270,000	23,351,000
228	Marietta College	20,452,000	23,283,000
229	University of Redlands	not reported	23,213,000
230	Roanoke College	22,852,000	23,122,000
231	University of Alaska	not reported	22,996,000
232	Franklin College of Indiana	17,047,000	22,956,000
233	Saint Mary's College (Ind.)	22,770,000	22,838,000
234	University of Hartford	23,609,000	22,802,000
235	Babson College	27,681,000	22,644,000
236	Wells College	21,537,000	22,534,000
237	Cornell College	19,963,000	22,523,000
238	Bethany College (W.Va)	26,027,000	22,257,000
239	Ball State University Foundation	not reported	21,329,000
240	Hope College	19,511,000	21,096,000
241	Pratt Institute [1]	27,752,000	20,906,000
242	St. John's College (Md.)	21,984,000	20,647,000
243	Lynchburg College	14,002,000	20,532,000
244	John Carroll University [3]	not reported	20,493,000
245	Medical College of Wisconsin	18,405,000	20,335,000
246	Alfred University	23,176,000	20,307,000
247	Bradley University [3]	18,465,000	20,174,000
248	Ohio Northern University	18,692,000	19,860,000
249	Rockhurst College	19,102,000	19,354,000
250	Randolph-Macon College	not reported	18,471,000
251	Oklahoma State University Foundation	not reported	18,381,000
252	New School for Social Research	not reported	18,274,000
253	Guilford College	not reported	18,158,000
254	University of Scranton [3]	18,163,000	18,100,000
255	Washington College	17,818,000	18,067,000
256	American University [4]	not reported	17,791,000
257	Canisius College	17,944,000	17,731,000
258	Bowling Green State University	7,393,000	17,689,000
259	Fairfield University	15,830,000	17,439,000
260	Saint Norbert College	17,512,000	17,311,000
261	Old Dominion University	not reported	17,281,000
262	Moravian College	16,700,000	16,401,000
263	U. of North Carolina at Greensboro	15,986,000	16,355,000
264	Xavier University (Ohio)	14,326,000	15,367,000
265	Salem College	16,647,000	15,240,000
266	Ripon College	14,617,000	15,137,000
267	Nazareth College of Rochester	14,754,000	14,849,000
268	Southwest Texas State University [1]	14,042,000	14,291,000
269	Mary Baldwin College	15,370,000	14,257,000
270	San Diego State University Foundation	12,063,000	13,613,000
271	Albright College	13,331,000	13,413,000
272	Elizabethtown College	13,272,000	13,199,000
273	Medical College of Pennsylvania	12,046,000	13,187,000
274	Marywood College	13,408,000	13,164,000
275	Morningside College [3]	12,458,000	13,107,000
276	Utah State University	10,856,000	12,854,000
277	Western Michigan University	10,063,000	12,787,000
278	Western Maryland College	11,048,000	12,306,000
279	Emporia State University	not reported	12,034,000
280	Otterbein College	not reported	12,016,000
281	Sarah Lawrence College [3]	11,530,000	12,003,000
282	Pitzer College	10,195,000	11,951,000
283	York College of Pennsylvania	11,486,000	11,795,000
284	Central University of Iowa [1]	12,227,000	11,735,000
285	Arizona State University	10,648,000	11,543,000
286	University of Rhode Island	11,650,000	11,271,000
287	New College Foundation	not reported	11,215,000
288	Suffolk University	12,153,000	11,190,000
289	University of Evansville [3]	9,932,000	11,137,000
290	King's College (Pa.)	not reported	11,000,000
291	Stephens College [3]	11,057,000	10,551,000
292	Madonna College	10,627,000	10,472,000
293	Memphis State University	3,280,000	10,223,000
294	Gannon University	not reported	8,099,000
295	Monmouth College (N.J.)	7,364,000	7,888,000
296	Russell Sage College	7,420,000	7,442,000
297	University of Medicine and Dentistry of New Jersey	8,820,000	6,729,000
298	University of Massachusetts	6,269,000	6,548,000
299	Bellarmine College [3]	6,384,000	6,544,000
300	St. John Fisher College [3]	5,533,000	6,272,000
301	College of New Rochelle	6,442,000	6,082,000
302	Grand Valley State University	not reported	5,968,000
303	University of South Carolina	4,293,000	5,768,000
304	Mount Mercy College	5,411,000	5,645,000
305	State U. of New York-Stony Brook Foundation	not reported	5,311,000
306	Widener University	not reported	5,202,000
307	Rosemont College	not reported	4,838,000
308	Saint Peter's College	3,439,000	3,881,000
309	Southern California College	2,692,000	3,798,000
310	Southwest Missouri State U. Foundation	not reported	3,155,000
311	East Tennessee State University	2,716,000	3,003,000
312	Kentucky Wesleyan College	2,781,000	2,656,000
313	State U. of New York-Potsdam College Foundation	not reported	2,533,000
314	Oakland University	2,672,000	2,410,000
315	Indiana University of Pennsylvania	1,539,000	1,646,000

Note: Table includes 315 institutions participating in the comparative-performance study by the National Association of College and University Business Officers.

[1] As of August 31, 1988
[2] As of September 30, 1988
[3] As of May 31, 1988
[4] As of April 30, 1988
[5] As of July 31, 1988

Private Grants and Gifts

PEW CHARITABLE TRUSTS

3 Parkway, Philadelphia 19102-1305

Facilities. For an international-studies center: $500,000 over three years to Middlebury College.

Faculty. For programs of faculty development: $1.8-million over three years to Christian College Consortium.

Forests. For research on the impact of climate change on northern temperate-forest reserves: $120,000 over two years to U. of California at Santa Barbara.

Governance. To develop a database to be used for comparative and strategic analysis by colleges and universities: $94,000 to Association of Governing Boards of Universities and Colleges.

Support. To add international issues to the undergraduate liberal-arts curriculum and for programs for minority-group students: $500,000 over three years to Eastern College.

—For programs in writing, language, and linguistics: $500,000 to Vassar College.

ALFRED P. SLOAN FOUNDATION

630 Fifth Avenue, New York 10111

Air travel. For a study of critical factors affecting air-passenger service and safety: $150,000 over two years to National Research Council.

Biography. For a biography of John von Neumann by Norman Macrae: $130,000 over two years to London School of Economics and Political Science.

Computers. For workshops and related activities as part of a software-dissemination project with International Business Machines Corporation: $60,000 each to Mount Holyoke College, Pomona College, Savannah State College, Spelman College, and Trinity College (Conn.).

Economics. For a research conference of young economists from the United States and Britain: $100,000 over three years to London School of Economics and Political Science.

—For a project on the political economy of international monetary cooperation: $375,000 over three years to Institute for International Economics.

Evolution. For postdoctoral fellowships in molecular studies of evolution: $80,500 each to California Institute of Technology, North Carolina State U. at Raleigh, U. of Rochester, and U. of Texas at Austin and $40,250 to U. of California at Berkeley.

Faculty. For a faculty workshop on negotiation analysis and game theory: $75,000 to Union College.

International issues. For a national conference on nuclear-war and peace courses: $30,000 to George Mason U.

Mathematics. For activities on the use of symbolic computation systems in undergraduate mathematics: $115,000 to Mathematical Association of America.

Science. For a symposium on frontiers of science: $30,000 to National Academy of Sciences.

TRW FOUNDATION

1900 Richmond Road, Cleveland 44124

Engineering. For a professorship in engineering and applied science: $750,000 to California Institute of Technology.

UPS FOUNDATION

51 Weaver Street, Greenwich Office Park 5
Greenwich, Conn. 06836

Student aid. For scholarships and financial aid: $52,560 to Associated Colleges of Illinois.

E. L. WIEGAND FOUNDATION

One East First Street, Reno 89501

Chemistry. For a gas chromatograph mass spectrometer for the chemistry department: $76,000 to U. of Dallas.

GIFTS AND BEQUESTS

Briar Cliff College. For the undergraduate research fund in chemistry: $40,000 from the estate of Kathleen Damme.

—For support of programs: $112,749 from the estate of Ellen E. Elkin.

East Texas Baptist University. Unrestricted gift of $100,000 from Mrs. Clifford Nelson Murphy.

Emory University. For scholarships in the school of law: $125,000 from LaBelle Birnbaum Tenenbaum.

Findlay College. For scholarships: $1.5-million from the estate of Ruth Corwin Endly.

Lake Erie College. For the library: $1-million from the estate of Jane White Lincoln.

Lenoir-Rhyne College. For the capital campaign: $5-million from an anonymous donor and $2.5-million from the Harley F. Shuford, Sr., family.

Louisiana Tech University. For a professorship in the college of engineering: $600,000 from T. L. James and Company.

Rockhurst College. For the endowment: $1.2-million from the estate of Richard E. Powell.

Trinity College (Conn.). For the capital campaign: $1-million from George A. Kellner.

University of Akron. For the university's Wayne College: $56,638 from the estate of Mary Hecker.

University of Idaho. For the capital campaign: $50,000 from John and Joan Yuditksy.

University of Kansas. For a professorship in applied geophysics: $500,000 from Dean A. McGee.

University of Michigan. For a combined program in engineering, manufacturing, and business: $2.5-million from Ford Motor Company.

University of North Dakota. For scholarships and student loans in the school of medicine: $1-million from the estate of Ray Duggan.

University of Southern California. For research on cancers of the blood and bone marrow: $1.5-million from Bette P. Kaplan.

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SPRING-SUMMER 1989
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Oil spills are not usually catastrophic, but major uncertainties remain about their long-term effects on the environment: Page A4.

Evidence of a pulsar spinning at nearly 2,000 revolutions a second has excited scientists: Page A5.

Colleges are passing along more of their health-care costs to employees, but are giving them more say in how their money is used: Page A13.

While state spending on grants and scholarships for needy undergraduates is expected to grow by only 7.8 per cent this year, some officials are hoping to help a growing segment of the college market, part-time students: Stories on Page A21.

Soaring garbage-disposal costs are prompting more colleges to organize recycling programs: Page A29.

A group of Washington State legislators thinks it can give equal opportunities to male and female athletes at state colleges: Page A35.

Faculty anger over salaries has led to a strike in Greece and threats of a mass protest in France: Page A39.

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Budget Uncertainties Confuse Colleges, Washington Officials

Says one perplexed aide: 'No one can tell us what the numbers are'

By **ROBIN WILSON**

WASHINGTON

When members of a House committee asked Education Secretary Lauro F. Cavazos last week how much money President Bush wanted to spend on federal education programs next year, the Secretary couldn't tell them.

Mr. Cavazos wasn't alone in the confusion over Mr. Bush's budget proposal.

Education Department budget analysts, members of Congress, and college lobbyists last week were scrambling to make sense of the budget recommendations of the new President. In most cases, they were left frustrated.

The details of President Bush's budget proposals for science and technology were still murky last week: Page A24.

"It's terrible," said an aide to the House Budget Committee. "No one can tell us what the numbers are. Even the Education Department budget people are pulling their hair out."

As the confusion grew, many college lobbyists and members of Congress, who had praised Mr. Bush for his treatment of education in his first few weeks in office, said they were becoming more skeptical of the President's promises to help the nation's colleges and students.

The confusion does not center on education programs alone. Indeed, the budget picture for nearly every federal agency is blurry.

The problems arose because Mr. Bush

Continued on Page A22

SPECIFIC STRATEGIES PROPOSED

Universities Urged to Take New Steps to Prevent Fraud and 'Sloppy Science'

By **DAVID L. WHEELER**

WASHINGTON

A panel appointed by the Institute of Medicine to examine ways of reducing fraud and "sloppy science" recommended specific steps last week that universities and others could follow to foster a climate of integrity among researchers.

At each possible checkpoint in a scientist's career—from undergraduate courses to job promotions—the panel recommends that universities adopt specific strategies to encourage honest, careful, and responsible research. Universities should set up formal courses in responsible research for all science students, the panel says, and make sure that academic departments devise written regulations outlining correct publication practices for students and faculty and staff members.

Departmental guidelines might urge scientists, for instance, to let their name be listed as the author of an article only when they have actually worked on the research and not just because they have donated laboratory space or materials.

By 1992, the panel says, the National Institutes of Health should require all institutions that receive N.I.H. grants to have specific procedures and policies to encourage responsible research practices.

The panel's report is the product of a 17-member committee set up by the Institute of Medicine and headed by Arthur H. Rubenstein, chairman of the department of medicine at the University of Chicago.

'Permissive Research Environment'

"In the long run," said Dr. Rubenstein when the panel released the report, "the integrity of the research environment may be more damaged by sloppy or careless research practices and lack of attention to traditional monitoring approaches than by incidents of outright research fraud."

The report notes that universities have always guarded the independence of researchers and have taken their integrity for granted. But, it adds, the absence of written standards has allowed a few researchers to get by with substandard work and has hampered investigations of misconduct, because the rules for research within disciplines often are not written down.

Research institutions, the report says,

Continued on Page A6

Tough Questions Confront Fulbright Program as Congress Begins Reauthorization Process

By **SCOTT JASCHIK**

WASHINGTON

When the federal government pays the expenses of a scholar conducting research abroad, does that scholar have any obligation to limit criticism of the United States?

Should international exchanges that are supported with federal funds be designed primarily to meet the needs of academics, or to further the interests of U.S. foreign policy?

Can an academic exchange program co-exist in a federal agency that is also charged with promoting the government's viewpoint throughout the world?

Congress will be forced to address those questions this year when the United States Information Agency comes up for reauthorization. The U.S.I.A., which is charged with strengthening support abroad for the policies of the United States, has programs ranging from the Voice of America broadcasting service to the Fulbright Program, which sponsors fellowships for American scholars to teach and conduct research abroad and for foreign scholars to visit this country.

Many scholarly organizations, college and university officials, and some key members of Congress say that political interference from the U.S.I.A., sometimes overt and more often subtle, has undermined the Fulbright Program's effectiveness.

At this point, however, it remains uncer-

Continued on Page A22

Foreign-Language Instruction Is Being Revitalized as Faculty Members Stress 'Doing' Over 'Knowing'

By **BEVERLY T. WATKINS**

A new teaching technique that stresses "doing" rather than "knowing" is revitalizing the foreign-language classroom.

More and more, foreign-language professors say they are stressing speaking, rather than grammar, from the very beginning in their courses. They are encouraging their students to talk as much as 90 per cent of the time. They are even testing students by engaging them in informal conversations.

To expose students to the contemporary language of another country, the professors are supplementing their textbooks with newspapers, timetables, menus, and other authentic foreign-language materials. Language laboratories are stocking audio- and videotapes of talk shows, radio and television news, sports broadcasts, and dramas by native speakers, many recorded in foreign countries. Some campuses are receiving foreign programs by satellite.

"No longer can people say, This person took four years of a foreign language and he can't do or say a thing with it," says Heidi Byrnes, associate professor and chairman of the German department at Georgetown University. "We are showing that college students are functionally able to do things with language."

Clear Limits on Expectations

At the same time, foreign-language professors say, they are showing that there are clear limits to what a college student can be expected to do after a few years in class.

Contrary to conventional wisdom, says Ms. Byrnes, "you do not get superior performance after three years in college. That is unrealistic."

At the heart of the new approach is the

Continued on Page A14

The NCAA Has Cited Nearly Half the Members of Its Top Division

In the 1980's nearly half the institutions in the N.C.A.A.'s Division I-A have been censured, sanctioned, or placed on probation: Page A35.

MARGINALIA

"The *Columbia University Record* is published weekly by the office of Public Information," says a notice in that publication, "except four times a month in September, March, three times a month in February, twice monthly in November, December, and January, and once monthly in June, July and August."

So who's counting?

■

In the 1988-89 catalogue of Mesa Community College and Chandler-Gilbert College Center, one faculty member's name is followed by this notation: "B.A., M.A., University of Texas at El Paso; A.B.D., Arizona State University."

■

We've just learned that, for longer than we like to admit, a box on the first page of our "Bulletin Board" section has quoted the advertising rate as "$1.05 cents per word."

"Makes cents to me," says the reader who called it to our attention.

■

From the newsletter of the National Center on Effective Secondary Schools, at the University of Wisconsin at Madison:

"Gloria Coulter is aware of both pluses and minuses of urban magnet schools. . . .

"According to Coulter, . . . the racial composition of the school is approximately 55 percent black, 20 percent Hispanic, 30 percent white, and the remainder is comprised of other minorities, primarily East Asian."

Now, about those pluses and minuses . . .

■

A postcard from Chapman College, announcing the 1989 class reunions, assures alumni and alumnae:

YOUR INVITED

■

From this newspaper:

"A 55-year-old former professor at the University of Southern Colorado has sued the institution, claiming it fired him because of his age and his outspokenness.

"Richard Lipp, who had been a tenured English professor, lost his job during a reorganization in 1985. . . .

"Mr. Lipp had been with the university for 27 years before the due-process act went into effect in 1975."

An early bloomer, he.

■

From the Purdue *Exponent:*

"[Greg] Barnes, a former president of the Purdue chapter of the American Association of University Professors, says, 'I have a deep-seated feeling about academic freedom and it involves respect for the integrity of reasoned descent.' "

Something to do with Darwin, no doubt.

—C.G.

In Brief

Fired Psychiatrist Is Reinstated on Hospital Staff

BELMONT, MASS.

A well-known psychiatrist who resigned as the head of one of Harvard University's teaching hospitals after admitting to plagiarism has been reappointed as a staff psychiatrist at the hospital.

Trustees of the McLean Hospital announced that Shervert H. Frazier, the hospital's former director, had been reinstated as a staff psychiatrist. However, they said Dr. Frazier would not resume his former administrative duties at the hospital, a psychiatric institution located in this Boston suburb.

Daniel C. Tosteson, dean of Harvard's medical school, asked Dr. Frazier to resign from his faculty and administrative posts in November after a faculty committee concluded that he had plagiarized sections of four scientific papers written and published from 1966 to 1975 (*The Chronicle*, December 7, 1988).

Former NIMH Director

Some scientists applauded Dr. Tosteson's action, saying it was consistent with Harvard's policy of asking students caught plagiarizing to withdraw from the university. Others said the penalty was too harsh. Dr. Frazier, one of the country's most prominent psychiatrists, was director of the National Institute of Mental Health from 1984 to 1986.

Dr. Tosteson said in a statement that the trustees' action "expresses appropriate respect and gratitude for Dr. Frazier's many years of service as an administrator and a physician concerned for the care of the mentally ill."

—KIM A. McDONALD

Penn State Sets Reward in 2 Racist Incidents

Pennsylvania State University officials last week offered a reward of $1,000 for information leading to the conviction of those responsible for two recent racial incidents.

In the first incident, five black female students reported that they had been accosted by 10 white men near the campus late at night.

The women told police that they had fought off attempts by the men to force one of them into an automobile. The men, who allegedly made racist remarks to the women, fled in the car, police said.

In the second incident, posters were hung on and around the campus that contained racially derogatory remarks about Seth Williams, a black student who is president of the student government.

Lieut. Jack Orndorf of the State College, Pa., police said his department was working with university police to find out who was responsible for the posters. He said Mr. Williams had also received one of the posters in the mail.

In a statement, Bryce Jordan, the university's president, condemned those responsible for the two incidents. "It is frustrating and disturbing to think that students of this university must face intimidation and fear for their safety," he said.

The reward money was given to the university by an anonymous donor.

Court Orders Brown U. to Grant Women Tenure

A federal judge has ruled that Brown University must grant tenure to an additional 13 female professors by 1991 because it failed to meet hiring guidelines that were part of a 1977 consent decree in a sex-discrimination lawsuit.

Under the decree, Brown was expected to grant tenure to 57 women by 1987. By the deadline, however, only 50 women were tenured professors. Brown blamed its failure to meet the goal on attrition.

Last fall, Brown asked the court either to vacate the consent decree immediately or to set a date of June 1990, when it would end.

In the decision, U.S. District Judge Raymond J. Pettine both declined to end the decree and set a hiring goal for Brown of 70 tenured female professors by 1991. The court did lift part of the decree concerning Brown's hiring of non-tenured female professors because the university had surpassed the 1987 goal.

Brown intends to ask the court to take attrition of tenured female professors into consideration in setting the hiring goal, said Mark M. Nickel, a university spokesman. If the court agrees, Brown would be required to have 63 tenured female professors on the faculty by 1991, rather than 70.

Currently, 54 of the 395 tenured professors at Brown are women.

Music-Box Bomb Sent to SUNY Dean of Students

A bomb that could have caused death or serious injury was delivered to the dean of students at the State University of New York College at Geneseo in the guise of a music box.

The box arrived with a typewritten note telling the recipient to plug it in and push the button to hear music.

Instead, Kathleen Hayes-Sugarman, the dean, contacted the university's public-safety office. The bomb unit of a nearby country sheriff's office removed the device and destroyed it with a water cannon.

Agents of the Federal Bureau of Investigation and officers from local and state police departments are trying to determine who sent the bomb. It may have been a disgruntled student or someone from the area, a college spokesman said. The package had no return address or postage.

Cal. Housing Won't Open to Homosexual Couples

The University of California at Berkeley, citing legal uncertainties and a shortage of university-owned housing for married students, has turned down a request to allow gay and lesbian couples to occupy such housing.

The request had been approved by the Associated Students' Senate at Berkeley at the urging of same-sex couples. The couples had charged that the university's policy on married-housing occupancy discriminates against gays and lesbians.

Ira Michael Heyman, chancellor of the Berkeley campus, said the state had provided no legal authority for recognizing personal relationships outside of marriage. Allowing same-sex couples to occupy married housing, he said, would "surely invite future litigation."

Mr. Heyman's position reflects the university system's policy on the issue, a spokesman for the university said.

U. of Chicago Bars Firm From Campus Recruiting

A nationally known law firm has been barred from recruiting next year at the University of Chicago's law school after a member of the firm made racist, sexist, and anti-Semitic statements to a black female student during a job interview.

Geoffrey R. Stone, dean of the law school, announced this month that the Chicago-based firm of Baker & McKenzie would be prohibited from recruiting on the campus during the 1989-90 academic year.

Mr. Stone said in a statement

Report Hits U.S. Students' Inability to Grasp Complex Tasks

By THOMAS J. DeLOUGHRY

WASHINGTON

Students in American elementary and secondary schools have improved their verbal and mathematics skills in the past 20 years, but most cannot apply them to complex intellectual tasks, according to a report released here last week.

The majority of high-school graduates are unable to understand "relatively complicated" information, use basic algebra, or evaluate the appropriateness of scientific procedures, the report says.

Published by the Educational Testing Service, the report is based on the results of standardized tests administered to 1.4 million students aged 6, 13, and 17, from 1969 to 1986.

The report, "Crossroads in American Education" is a compendium of reports written from 1985 to 1988 on mathematics, reading, science, and writing that E.T.S. has published as part of the National Assessment of Educational Progress, which is mandated by Congress.

In particular, the report says, reading tests have shown that 61 per cent of 17-year-olds cannot find, understand, summarize, or explain relatively complicated information, including material about topics they study in school.

In mathematics, 49 per cent of 17-year-olds cannot compute with decimals, fractions, and percentages, recognize geometric figures, or solve simple equations, while 94 per cent cannot solve multi-step problems or use basic algebra.

Lack of Scientific Knowledge

In science, the report says, 59 per cent of 17-year-olds do not have detailed scientific knowledge or the ability to evaluate the appropriateness of scientific procedures, and 93 per cent cannot infer relationships and draw conclusions using detailed scientific knowledge.

America's schools have made some progress in diminishing the gaps in performance between white students and minority-group students in mathematics, reading, and science, the report says. However, those gaps remain "unacceptably large," it says, noting that "in all three subject areas, the average proficiency levels of black and Hispanic 17-year-olds are close to those of white 13-year-olds."

The report calls on teachers to place less emphasis on students' ability to memorize facts and to adopt teaching methods that promote thinking.

"Discussion teams, cooperative work groups, individual learning logs, computer networking, and other activities that engage students as active learners will need to be added," the report says. "Teachers will need to act more as guides, and students more as doers and thinkers."

Copies of the report are available for $9 each from the National Assessment of Educational Progress, P.O. Box 6710, Princeton, N.J. 08541.

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Ways & Means

If anybody seemed destined for a top job in the Bush Administration, it was New Jersey Gov. Thomas H. Kean.

The popular Republican Governor was one of George Bush's biggest cheerleaders in the Presidential campaign. His record on education, economic development, and the environment made him a top prospect for the new President's recruiters, who reportedly offered him a Cabinet post.

But Governor Kean, a former history teacher who nearly completed his Ph.D. before being sidetracked by a political career, had a presidential administration of another sort in mind.

When he leaves office in January 1990, he will become president of Drew University, a private, Methodist institution of 2,200 students just a few miles from his home.

Aides to the Governor said the move should not have been surprising. "He's had a lifelong involvement with education," said one, John Samerjan.

During his seven-year tenure as Governor, Mr. Kean was a particularly strong advocate for increased spending for education, including initiatives that provide state money to private colleges. By law, he cannot serve more than two successive terms.

At Drew, which has had an interim president since Paul Hardin left in June to become chancellor of the University of North Carolina at Chapel Hill, there were cheers from students and faculty members when the news was announced at a campus assembly.

Although Drew is not as well known as other private colleges in New Jersey, including the Governor's alma mater, Princeton University, Mr. Samerjan predicted that would change "after he gets through."

■

Cassidy and Associates, Inc., the lobbying company that has persuaded Congress to give tens of millions of dollars to specific colleges and universities, is trumpeting some extremely well-connected additions to its already influential staff.

They include Sheila Tate, who served as President Bush's press secretary during his campaign and the Presidential transition; Gen. Paul X. Kelley, former commandant of the Marine Corps; Robert K. Dawson, a former associate director of the White House Office of Management and Budget; and Robert A. Farmer, who was chief fund-raiser for the Democratic National Committee's 1988 election campaign.

Perhaps no one was as impressed by the achievement as Gerald S. J. Cassidy himself. Mr. Cassidy, the company's chairman, issued a statement that said: "I have worked in Washington for more than 20 years and I can't remember any firm of any type being able to announce the addition of such stellar people at any one time."

Government & Politics

State Spending on Financial Aid for Needy Students Expected to Total $1.5-Billion This Academic Year

7.8-pct. increase is second-lowest of the 1980's; 14 states provide 85 pct. of the scholarship money

By COURTNEY LEATHERMAN

State spending on grants and scholarships for needy undergraduates is expected to grow by 7.8 per cent this academic year—the second-lowest increase of the 1980's.

States are expected to provide about $1.5-billion in aid to more than 1,321,000 needy undergraduates this year. On the average, each student will receive $1,136 in state support. Nearly the same number of needy undergraduates last year received about $1.392-billion from the states.

The bulk of such aid is provided by 14 states, which cumulatively award about 85 per cent of the scholarship money for needy undergraduates, according to an annual survey conducted by the National Association of State Scholarship and Grant Programs. The group solicits information for the survey from its members—agencies in every state that oversee financial-aid programs. The survey was completed last month.

Jerry S. Davis, director of policy and research analysis for the Pennsylvania Higher Education Assistance Authority, which prepared a report of the survey, said the study showed that states were having difficulty meeting the needs of undergraduate students already eligible to receive state aid, and therefore could not afford to reach out to new students who may need support.

"I'd guess states are doing pretty much what the federal government is doing: letting students borrow the money because they can't afford to keep up with the grant expenditures," he said. The study also showed that had states provided support for more students, the average award would not have been large enough to keep pace with the average increase in the cost of college this year.

States still spend more on aid for needy undergraduates than for all the other financial-aid programs they administer. About 78 per cent of total state allocations went for grants to needy undergraduates this year. Yet the survey reflected a recent trend whereby states are paying more attention to grants and scholarships that do not consider the need of undergraduates.

> "States are doing pretty much what the federal government is doing: letting students borrow the money."

While a very small proportion of the total that states award to college students goes to these programs—they account for only about one-tenth of the total—the survey found that spending on these grants was increasing at a faster rate than was spending for needy undergraduates.

Aid programs that do not base awards on the needs of students typically are designed for three purposes: to reduce the differences between tuition costs at private and public colleges; to reward academically talented students as an incentive to keep them in the state; and to encourage students to earn degrees in certain areas, such as mathematics, science, and nursing.

Frustrations and Political Pressures

The 29 states that offer such programs expect to award some $169.8-million to about 229,000 students—an increase of 16.8 per cent over last year. In the states that have offered both types of aid, support for non-need based grants has grown faster than has aid for needy students, according to the survey.

Aims C. McGuinness, Jr., assistant executive director for postsecondary education of the Education Commission of the States, said that the slight shift of focus was probably due to mounting political pressures on state legislators to provide aid for students who do not qualify for assistance under most of the current programs, and their frustrations with the present grant programs for needy students.

"There have been enough problems with the current student-aid system, that the political base is not what it used to be," he said.

"From a legislator's point of view, you're dealing with extremely limited resources and a complicated program, for

Continued on Page A27

SOME RESISTANCE REMAINS

More States Are Providing Aid to Those Who Study Part Time

PHOTOGRAPH FOR THE CHRONICLE BY BOB WEBBER

Pamela J. Powell: Because of her state's policies, she does not have to choose between a job and a college education.

By GOLDIE BLUMENSTYK

Pamela J. Powell has a demanding schedule. A single parent of two grade-school–aged children, she commutes 30 minutes each way to her job at a drug company, and spends two evenings a week and Saturday afternoons in classes at the Newark campus of Rutgers University.

Fortunately for Ms. Powell, who aspires to be a lawyer, New Jersey's student financial-aid policies no longer force her to choose between a job and a college education. Ms. Powell, whose load of three courses a semester makes her a part-time student, can continue to receive state financial aid under a special program started this year.

Changing Nature of Student Body

Unluckily for Jennifer J. Daniels, the State of Washington does not have a similar program. Ms. Daniels is blind and says it is too difficult for her to attend Tacoma Community College full time because transportation poses special problems and she would need to spend an extra $700 a semester to pay people to read to her.

But students like Ms. Daniels could soon receive help. This year state lawmakers are expected to approve a new program that would provide money to needy part-time students.

"It's really a recognition of the changing composition of the student body," says State Rep. Ken G. Jacobsen, chairman of the Higher Education Committee.

Washington is not alone. Increasingly, state officials are

Continued on Page A26

FACT FILE: Estimated State Student Aid, 1988-89

Undergraduate

	Need-based assistance				Non-need-based assistance			
	Dollars paid out	1-year change	Number of awards	Average award	Dollars paid out	1-year change	Number of awards	Average award
Alabama	$2,260,000	0	3,924	$ 576	$4,020,000	-1.2%	7,878	$ 510
Alaska	230,000	4.2%	154	1,494	—	—	—	—
Arizona	3,508,000	+8.9%	4,179	839	—	—	—	—
Arkansas	3,910,000	4.0%	10,689	366	690,000	+1.6%	345	2,000
California	140,981,000	18.7%	73,761	1,911	—	—	—	—
Colorado	9,395,000	+0.7%	13,255	709	7,947,000	+7.2%	9,718	818
Connecticut	21,149,000	+44.4%	17,500	1,209	—	—	—	—
Delaware	983,000	+21.8%	1,133	868	199,000	-2.5%	198	1,005
District of Columbia	1,075,000	2.8%	780	1,378	—	—	—	—
Florida	19,626,000	+28.7%	19,016	1,032	28,319,000	+46.2%	20,918	1,354
Georgia	5,020,000	+9.2%	14,141	355	14,200,000	+6.4%	15,510	916
Hawaii	598,000	+6.2%	700	854	—	—	—	—
Idaho	348,000	+1.5%	805*	432	114,000	-5.0%	76	1,500
Illinois	147,303,000	+8.4%	102,020	1,444	8,475,000	+7.4%	14,248	595
Indiana	51,654,000	+13.8%	35,984	1,435	408,000	0	815	500
Iowa	30,915,000	+19.1%	20,291	1,524	450,000	-41.3%	3,750	120
Kansas	5,680,000	+6.4%	4,850	1,171	25,000	0	100	250
Kentucky	13,190,000	+8.5%	21,185	623	—	—	—	—
Louisiana	1,964,000	+4.5%	3,987*	493	714,000	+15.3%	1,668*	428*
Maine	1,411,000	0.5%	3,200	441	—	—	—	—
Maryland	12,729,000	+45.7%	14,820	859	4,573,000	+69.9%	2,803	1,631
Massachusetts	64,018,000	+3.9%	50,264	1,274	1,850,000	-0.6%	1,730	1,069
Michigan	69,662,000	-0.6%	51,007	1,366	—	—	—	—
Minnesota	62,000,000	-2.1%	63,667	974	—	—	—	—
Mississippi	1,251,000	+1.7%	2,600	481	430,000	+473.3%	135	3,185
Missouri	10,331,000	+23.1%	8,500	1,215	4,004,000	+121.1%	2,042	1,961
Montana	420,000	+0.2%	1,300	323	—	—	—	—
Nebraska	1,793,000	+63.9%	2,500	717	—	—	—	—
Nevada	352,000*	0	352*	1,000	—	—	—	—
New Hampshire	835,000	+3.1%	2,109	396	136,000	+2.3%	191	712
New Jersey	80,222,000	+14.1%	56,038	1,432	4,549,000	+81.0%	4,743	959
New Mexico	5,024,000	+22.3%	7,032	714	2,950,000	0	1,969	1,498
New York	384,062,000	+3.1%	299,078	1,284	23,346,000	+19.8%	64,030	365
North Carolina	4,489,000	1.5%	7,065	635	23,297,000	+5.7%	24,330	958
North Dakota	1,007,000	+105.5%	2,013	500	111,000	+122.0%	n/a	n/a
Ohio	51,400,000	+4.5%	68,000	756	21,049,000	+1.2%	38,346	549
Oklahoma	10,122,000	1.2%	13,991	723	165,000	+7.8%	n/a	n/a
Oregon	10,616,000	+6.6%	16,165	657	—	—	—	—
Pennsylvania	120,373,000	+8.5%	116,207	1,036	625,000	4.6%	250	2,500
Rhode Island	9,130,000	+12.2%	9,600	951	120,000	+100.0%	48	2,500
South Carolina	17,828,000	+9.1%	8,000	2,229	—	—	—	—
South Dakota	506,000	1.9%	1,600	316	90,000	6.3%	67	1,343
Tennessee	12,404,000	1.5%	19,000	653	136,000	30.8%	34	4,000
Texas	22,729,000	+0.1%	19,362	1,174	—	—	—	—
Utah	1,081,000	4.6%	1,700	636	—	—	—	—
Vermont	9,426,000	+12.0%	10,368	909	—	—	—	—
Virginia	5,851,000	+32.6%	7,500	780	16,820,000	+12.2%	12,680	1,326
Washington	12,901,000	+3.8%	18,377	702	—	—	—	—
West Virginia	5,228,000	+0.8%	5,700	909	—	—	—	—
Wisconsin	36,219,000	+4.5%	49,860	726	—	—	—	—
Wyoming	250,000	+4.2%	400	625	—	—	—	—
Puerto Rico	15,419,000	+7.7%	35,630	433	—	—	—	—
Total	**$1,500,878,000**	**+7.8%**	**1,321,359**	**$1,136**	**$169,812,000**	**+16.8%**	**228,750**	**$742**

Graduate and Professional

	Need-based assistance				Non-need-based assistance			
	Dollars paid out	1-year change	Number of awards	Average award	Dollars paid out	1-year change	Number of awards	Average award
Alabama	$40,000	31.0%	20	$2,000	$28,000	0	11	$2,545
Arizona	18,000	+12.5%	21	857	—	—	—	—
California	3,233,000	0.2%	927	3,488	—	—	—	—
Colorado	827,000	+3.4%	750	1,103	1,052,000	0	530	1,985
Connecticut	—	—	—	—	200,000	0	20	10,000
Delaware	109,000	+21.1%	126	865	—	—	—	—
Florida	—	—	—	—	885,000	+18.0%	118	7,500
Idaho	146,000	+1.4%	97*	1,505	—	—	—	—
Maryland	269,000	+8.9%	540	497	61,000	+177.3%	61	1,000
Massachusetts	5,300,000	3.3%	2,634	2,012	300,000	0	n/a	n/a
Michigan	3,565,000	1.5%	1,792	1,989	—	—	—	—
Mississippi	—	—	—	—	560,000	+65.7%	143	3,916
Nevada	48,000*	0	48*	1,000*	—	—	—	—
New Hampshire	1,000	0	1	1,000	—	—	—	—
New Jersey	575,000	+19.3%	189	3,042	600,000	+28.2%	100	6,000
New Mexico	285,000	n/a	40	7,125	—	—	—	—
New York	11,538,000	+1.7%	15,250	757	5,159,000	+45.7%	1,325	3,894
North Carolina	1,500,000	+19.6%	784	1,913	—	—	—	—
Ohio	—	—	—	—	413,000	+103.4%	118	3,500
Oklahoma	1,300,000	1.2%	1,534	847	263,000	-5.7%	72	3,653
Texas	1,758,000	0.6%	1,388	1,267	—	—	—	—
Utah	—	—	—	—	984,000	+2.9%	67	14,687
Vermont	137,000	+11.4%	106	1,292	—	—	—	—
Virginia	—	—	—	—	1,227,000	+12.6%	941	1,304
Washington	1,000	0	1	1,000	—	—	—	—
Puerto Rico	1,658,000	+2.1%	4,870	340	—	—	—	—
Total	**$32,308,000**	**+2.0%**	**31,118**	**$1,038**	**$11,732,000**	**+27.2%**	**3,506**	**$3,346**

Note: This table shows most of the money that states spend on student aid. However, some states may spend more through programs that are not specifically identified as student-aid programs.

n/a Indicates data not available or no comparable program in 1987-88.

* Indicates 1987-88 data.

SOURCE: NATIONAL ASSOCIATION OF STATE SCHOLARSHIP AND GRANT PROGRAMS

More States Providing Financial Aid to Needy Part-Time College Students

Continued from Page A21

dealing with the financial needs of the fastest-growing segment of the higher-education market by expanding their financial-aid programs so that working people, parents, and students with disabilities who must attend college part time can receive state aid. Today at least 30 states offer some kind of financial aid for part-timers, although some of the programs are restricted to certain kinds of students.

For example, the New Jersey program that serves Ms. Powell is only for students accepted under special conditions and who require academic help and counseling.

More than half of the 11,000 students in the program come from families with annual incomes of less than $6,000, and even though they also qualify for federal financial aid, "there's pressure on them to pick up some additional money," says Kwaku Armah, executive director of the program.

Some students, like Ms. Powell, seek to study on a part-time basis, so that they can take a better-paying job, he says. Others are advised to take a lighter course load to help them adjust to college work. But until the state changed its financial-aid policy for them, they could not afford to do so.

In several other states—including Maryland, where the Higher Education Commission will re-evaluate its entire range of state student-aid programs next summer—coordinating boards are considering proposals to create such programs.

State Action Called Overdue

The federal government has made Pell Grants available since 1980 to students carrying at least a "half load" of courses. Beginning in 1990 needy students enrolled for less than half a course load also would be eligible, although it is still unclear whether there will be enough money in the budget to meet the demand after first satisfying the needy full- and half-time students.

Typically, the financial aid for part-time students provided by states is available only to students taking at least a half load, although Vermont provides aid for students not pursuing a degree if they are taking courses related to their job, and Iowa next year will expand its part-time aid program to include students who take even one course.

For many advocates of financial aid to part-time students, state action of any kind is long overdue.

Students who are working or supporting families "need the help the most," says Joseph S. Murphy, chancellor of the City University of New York and a leading proponent of government support for part-time students.

New York has had such a program for five years. Even so, CUNY lobbyists this year hope to remove some of what Mr. Murphy calls the program's "onerous" requirements. If the student fails to maintain a passing grade-point average, the colleges must return most of the aid to the state, a cumbersome and expensive process. As a result, Mr. Murphy says, institutions are reluctant "to advertise the program, make it widely available, or even participate."

Lawrence N. Gold, a lobbyist in Washington who used to be employed by CUNY and worked to expand the Pell Grant program to students attending less than half time, says the problems with the New York program illustrate a more troublesome issue. Even in states where officials have committed substantial resources—$11-million in the case of New York—other factors can undermine the effectiveness of programs.

Working students often cannot go to a financial-aid office during regular business hours, and sometimes program budgets do not provide enough money for those offices to maintain

Private Colleges in Illinois Push Aid Plan

SPRINGFIELD, ILL.

Private colleges in Illinois are pushing a bill this year that they hope will change the way state officials think about student aid.

The bill would require the state to provide enough funds for the state's scholarship program so that all Illinois students with demonstrated financial need would receive enough money to attend the college of their choice in the state. Under the legislation, no money could be allocated to the state's public colleges and universities until the scholarship program was fully supported.

The bill defines meeting students' financial need as covering full costs at a public institution and 65 per cent of the average tuition cost at a private college in the state. An additional $80-million would be required to finance the expansion of the state's aid program, which would then serve an additional 25,000 students a year.

Supporters of the bill say that public colleges could raise tuition for their wealthier students to offset any funds they would lose.

The entire concept has drawn opposition from public colleges here. Thomas D. Layzell, chancellor of the Illinois Board of Governors of State Colleges and Universities, said it was a "laudable goal" to increase support for financial aid, but added that the bill was using the wrong approach.

He said that overall spending on higher education should be increased, and that it was incorrect to think that many students at public universities could afford to pay more tuition. "I don't know where all those wealthy students are," he said. "About 70 per cent of our students are already on financial assistance of some kind."

'Fund Students First'

Donald E. Fouts, president of the Federation of Independent Illinois Colleges and Universities, said he was aware of the criticism from public colleges and would not be surprised if such comments led to the defeat of the legislation. But he added that he strongly supported it.

"The students aren't getting the dollars they should, and when dollars are scarce, they should go to programs that aid students directly," he said.

To stress that point, supporters are calling the legislation the "Fund Students First" bill. Even if it doesn't pass, Mr. Fouts said it would have an impact because it would dramatize the needs that have not been met in student aid.

"Just getting it on the table is very important," he said. —S.J.

Note Book

A Miami University professor found that plagiarism was a common practice among students he surveyed on two medium-sized university campuses.

Jerold L. Hale, assistant professor of communications at Miami University's Oxford campus, surveyed 370 students on the two campuses. Some 55 per cent of them admitted plagiarizing work they had submitted in their classes.

At one campus, the students said they had plagiarized 19 per cent of their total course work, while students at the other institution said they had plagiarized 9 per cent of their work.

"Many of the students think that professors are too busy to check their writing," says Mr. Hale. "Students tend to think that in larger classes the likelihood of detection is low."

Mr. Hale said he had become concerned about plagiarism when he found four cases in one of his own classes.

Many students think they are more honest than their peers, Mr. Hale said. "They go through a kind of rationalization process where they say, 'It's true, I'm a dishonest person, but I'm a lot more honest than most college students.' "

Students at one of the institutions believed that 35 per cent of college students plagiarized work. At the second institution, students believed that 52 per cent of their peers plagiarized.

Based on his findings, Mr. Hale said professors should expect at least one piece of plagiarized work in any class with 20 or more students.

■

Officials at the University of Wisconsin have adopted new policies to make it easier to report cheating.

The old system discouraged professors from accusing students of cheating, university officials said. "It used to be a very formal procedure," said Chuck Nowlen, a spokesman for the university. "It was like going to court, because you had to provide all this documentation. So professors said, 'Why bother? I've got other things to do.' "

The new rules should also make it easier for students to file appeals. Students found the old rules so difficult to understand that many declined to appeal decisions they felt were unfair.

About 40 to 60 cheating complaints are filed each year at the university's Madison campus alone. "We don't have any more of a cheating problem than anywhere else," said Mr. Nowlen.

Among the changes:

- Instructors can impose some sanctions on their own, without filing a formal report; among such sanctions are verbal reprimands and telling a student to repeat the work in question.
- More severe sanctions can be imposed, without a hearing, as soon as an instructor has filed a report specifying the type of cheating and the recommended sanction.

Students

A Medical-School Program at U. of Washington Helps Northwestern States Lure Physicians to Rural Areas

The goal: 'to show there are doctors out there who are just as smart as the ones in Seattle,' a dean says

By PETER MONAGHAN

SEATTLE

Kim Leatham spent her first year of medical school in Moscow, Idaho; the second in Seattle; and the third and fourth at clinical-training sites in Boise and Pocatello, Idaho, as well as in Seattle.

It wasn't that she couldn't sit still long enough to complete her basic training. It was just that she, like many medical students at the University of Washington, was learning about the practice of medicine in rural communities, thanks to a program that since 1972 has helped four states in the Northwest hang on to a scarce and valuable commodity—physicians.

Rural areas nationwide have difficulty attracting physicians, and they also send fewer students to medical schools than do urban areas. That situation is worsening as more and more medical graduates pass up general practice and opt to become specialists. In many cases they are motivated by the prospect of earning money that can more quickly offset the indebtedness typically incurred in obtaining a medical education. Such specialists also usually require proximity to urban, comprehensive hospitals.

One of Many 'Outreach' Efforts

Since 1972, the University of Washington's medical school—the only one in the four-state region—has been trying to combat that problem with a program that has enjoyed steady success. Known as WAMI—for Washington, Alaska, Montana, and Idaho—the program is one of many "outreach" efforts by the medical school.

Wayne W. Myers, the school's associate dean for regional affairs, says that when he was studying to be a doctor, a view widely shared by medical students was that "if you went off to be a generalist in the sticks, you were probably a reject." The goal of WAMI, he says, is "to show students that there are doctors out there who are just as smart and care just as much as the ones

Continued on Following Page

PHOTOGRAPH FOR THE CHRONICLE BY AL GRILLO, PICTURE GROUP

Kenneth Carpenter, a medical student working in Anchorage: "One of the program's major benefits is being able to see different kinds of medicine practiced."

FACT FILE: 1988 Freshman Merit Scholars

This table shows the 52 colleges and universities enrolling the largest numbers of freshman Merit Scholars named in 1988.

The table shows the total number of Merit Scholarship winners and the number whose scholarships were paid for by the institution, not by the National Merit Scholarship Corporation or other corporate sponsors.

The rankings were determined by *The Chronicle* from an alphabetical listing supplied by the National Merit Scholarship Corporation.

Over all, 6,210 freshman Merit Scholars were enrolled—3,611 at 234 private institutions and 2,599 at 156 public institutions.

	Number of scholars	Number sponsored by institution
1. Harvard and Radcliffe Colleges	315	—
2. University of Texas at Austin	218	162
3. Stanford University	202	—
4. Rice University	179	129
5. Princeton University	151	—
6. Yale University	150	—
7. Georgia Institute of Technology	121	93
8. Texas A&M University	113	87
9. University of Florida	109	94
10. University of Chicago	108	67
11. Northwestern University	96	53
12. Carleton College	95	75
13. Michigan State University	90	75
14. Massachusetts Institute of Technology	88	—
15. University of California at Berkeley	82	4
16. University of California at Los Angeles	80	64
17. Duke University	74	9
18. Brigham Young University	70	40
19. University of Michigan	64	—
20. Brown University	63	—
21. Harvey Mudd College	62	41
22. University of Houston	59	50
23. Washington University (Mo.)	57	39
24. University of Minnesota–Twin Cities	56	43
25. University of Illinois at Urbana–Champaign	55	—
25. Williams College	55	—
27. Dartmouth College	53	—
28. University of Pennsylvania	51	—
29. Cornell University	50	—
30. University of Delaware	47	30
31. Trinity University	45	30
31. University of Oklahoma	45	35
33. Baylor University	42	35
33. Ohio State University	42	34
33. Pennsylvania State University	42	7
36. American University	41	34
36. Florida State University	41	35
36. Miami University	41	33
36. University of Kansas	41	36
40. University of Toledo	40	34
41. Boston University	37	28
41. Oberlin College	37	22
41. Virginia Polytechnic Institute and State University	37	29
44. Emory University	36	20
44. University of Arizona	36	27
46. Bowling Green State University	35	28
46. California Institute of Technology	35	—
46. University of Missouri at Columbia	35	26
46. University of Virginia	35	—
50. Macalester College	34	31
50. Tulane University	34	21
50. University of California at San Diego	34	24

SOURCE: NATIONAL MERIT SCHOLARSHIP CORPORATION

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News Summary

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Research psychologists say the negative emotional consequences of abortion are slight, while the Surgeon General says the evidence is inconclusive. Page A4

Participants in a workshop on scientific misconduct debated whether scientists who lie about research should be prosecuted. Page A5

Black American men continued in 1987 to earn fewer doctoral degrees than in the year before. Page A11

Congress's practice of earmarking money for specific campuses has not achieved the legislators' avowed goals. Page A17

As part of its crackdown on for-profit trade schools, the government has moved against three top recipients of federal aid. Page A17

The U. of Chicago and Argonne National Laboratory have formed a fund to develop and market their scientists' inventions. Page A23

North Carolina State U. officials were pleased by a publisher's decision not to print a book that alleged wrongdoing in the men's basketball program there. Page A26

As new freedoms take root in South Korea, students are turning their attention to reforming the country's universities. Page A27

Brazil's academic community has been stunned by austerity measures proposed by the government. Page A27

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FREEDOM OF EXPRESSION IMPERILED

Scholars and Academic Organizations Join Condemnations of Death Threat to Novelist

By CAROLYN J. MOONEY

The furor surrounding Ayatollah Ruhollah Khomeini's death threat against the writer Salman Rushdie spread to academe last week. Several groups defended the novelist's rights, professors organized informal readings, and campus bookstores scrambled to order more copies of the book that started it all.

Mr. Rushdie's novel, *The Satanic Verses*, has prompted violent protests in the Islamic world and has angered many Muslims, who consider it blasphemous. After the Ayatollah called for Mr. Rushdie's execution, the writer canceled a U.S. tour that included visits to at least four university campuses, and reportedly went into hiding in Britain.

Several large bookstore chains quickly ordered all copies of the novel removed from the shelves of their stores. However, Barnes & Noble Bookstores later announced it had asked the nearly 200 campus stores that it operates to consult with their institutions and decide themselves whether to offer the book. Several days later, the company announced it would resume selling the book in all its stores.

'Without Modern Parallel'

To many observers in academe and outside, the events surrounding Mr. Rushdie's novel were seen as the biggest threat to freedom of expression in recent history.

"The assault against this book and its author is without modern parallel," said a statement issued by the American Association of University Professors, which monitors academic freedom at higher-education institutions. "In the view of the A.A.U.P., those governments that have banned Salman Rushdie's book, publishers who have stopped its publication, and booksellers who have suspended its sales, have dishonored themselves in turning to censorship."

The executive council of the Modern

Continued on Page A14

'Electrocopies' Seen Surpassing Photocopies as Threat to Copyright

By JUDITH AXLER TURNER

BOSTON

"Electrocopying"—the reproduction of printed material in electronic form—may become a greater challenge to copyright than photocopying, publishers have been warned.

Timothy B. King, vice-president and director of publishing operations at John Wiley & Sons, said at a meeting here that the problem is one of copying from copies. "Photocopying stops there," he said. "Electrocopying goes on and on."

Electronic copies, he said, can be reproduced easily, often just by touching a few keys on a computer keyboard, without the inconvenience of finding a copying machine or of taking the original out of circulation. Copies can be sent across the country on computer networks or reproduced hundreds or thousands of times with simple computer commands. If the copy has been stored on a video disk as a picture, a laser printer can produce a paper version that will look exactly like the original. If the copy has been scanned by an optical-

Continued on Page A16

Faculty Members Wary of Efforts to Redefine Tenure Policies

Tenure is alive and well on most campuses, but its supporters are worried by some colleges' efforts to revise their policies: Page A10.

Tuition Seen Likely to Outpace Inflation for 9th Straight Year

Fee increases of 7 pct. to 10 pct. already revealed by many colleges

By JEAN EVANGELAUF

College tuition is likely to rise faster than the rate of inflation next fall, according to early reports.

While national figures will not be available until August, many colleges are announcing increases ranging from 7 per cent to 10 per cent, and a few are raising their tuition by 15 per cent or more.

In each of the last eight years, the increase in tuition has exceeded inflation as measured by the Consumer Price Index. Last year, consumer prices rose 4.4 per cent, compared with a 7-per-cent jump in tuition. While the federal government expects consumer prices to edge up about 5 per cent in 1989, a sharp 0.6-per-cent rise in consumer prices in January indicates inflation is worsening.

'Another Big Year'

In the last several years tuition has also outpaced the Higher Education Price Index, which measures the "market basket" of goods and services purchased by colleges and universities.

"It's another big year for tuition increases, there's no doubt about that," said A. Lee Fritschler, president of Dickinson College, where tuition will rise 9.5 per cent, to $13,300.

"We consider ourselves competitors in the most competitive industry in America. We compete for students and faculty and for funds from alumni, the government, and from foundations. What drives us most is putting our institutions in the best possible condition to compete in terms of programs and quality."

Analysts who follow tuition trends say they are not surprised by the increases, and add that they believe costs will contin-

Continued on Page A25

High-School Graduates: Some States Face Sharp Drop; Others, Big Growth

By MARY CRYSTAL CAGE

Like anxious passengers on a roller-coaster ride, state higher-education officials are bracing themselves for both sharp drops and dramatic climbs in the number of high-school graduates in the next decade.

The projected enrollment changes are raising a series of touchy political issues. In states with booming populations, college officials say they desperately need more money at a time when state coffers are facing countless demands. In states with declining populations, college officials must either attract new students or face the prospect of cuts in state support.

Overshadowing the consideration of the enrollment changes is the belief that many states did not plan well for such shifts in the past. "We played it all wrong back in 1979 and '80," says James M. Alessio, assistant director of research and information systems

Continued on Page A18

Officials at the U. of Texas at Austin hope to cut enrollment to about 46,000. At right, the campus's Jester Center.

PHOTOGRAPH FOR THE CHRONICLE BY BLAINE PENNINGTON

MARGINALIA

Headline in the *Arizona Daily Star*:

BUSH WORSHIPS, MEETS WITH ACADEMICIANS

That's our Education President!

■

Notice in the University of Pittsburgh's *Pitt News*:

"*The Pitt News* encourages its reaers to notify the paper of any errors contained in stories or photograh description. Please use the adress and/or phone numbers listed below, or stop by our offices from 9 a.m. to 5 p.m. each weekday."

Psst!

■

From the *Harvard Alumni Gazette*:

"The growth of courses has been reflected in the changing shape of the catalog. Margaret Law, registrar, said that in 1983-84, the format changed from 5½ inches by 8 inches to its present 6 by 9 inches to accommodate the growth in course listings.

"She adds that this year's courses, for the first time in recorded history, did not grow in size by 6 percent as it has over the past decade.

"'But that's not because there are fewer courses,' said Law. 'It's that we cut down on cross listings and really monitored the length of course descrip-.'"

That's *one* way to do it.

■

The University of Guelph, in Ontario, sent out a memo to college and university housing officers announcing a vacancy for a residence-life director, with this [illegible]:

"I must also inform you that because of Canadian Employment and Immigration legislation, I can only interview candidates who are Canadian citizens or permanent residents of Canada. Should I not find a suitable canadidate I can then interview others."

■

We're told that when the academic-affairs committee at North Central Bible College was considering a name for a new course, Math 125, it wanted to take due note of the fact that the course would welcome students from many programs: behavioral sciences, associate in arts, cross-cultural ministries (ethics), theology, education, music, communications, sign language, undeclared, Christian studies, mathematics, and junior college. The department chairman suggested "Behaviorally associated ethnotheoeducomusicocommunicably-signed undeclared Christian Math 125, Jr."

■

We're grateful to the *Federal Register* for this thought for the day:

"Dissemination is a notworking process."

—C.G.

In Brief

What They're Reading on College Campuses

TOM WOLFE
THE BONFIRE OF THE VANITIES

		Previous Survey
1.	The Bonfire of the Vanities, by Tom Wolfe	2
2.	Trump: the Art of the Deal, by Donald J. Trump with Tony Schwartz	—
3.	The Essential Calvin and Hobbes, by Bill Watterson	1
4.	All I Really Need to Know I Learned in Kindergarten, by Robert Fulghum	7
5.	The Accidental Tourist, by Anne Tyler	—
6.	Chaos, by James Gleick	—
7.	The Dictionary of Cultural Literacy, by E. D. Hirsch, Jr., Joseph F. Kett, and James Trefil	6
8.	The Tommyknockers, by Stephen King	3
9.	Beloved, by Toni Morrison	5
10.	The Shell Seekers, by Rosamunde Pilcher	—

The Chronicle's list of best-selling books was compiled from information supplied by stores serving the following campuses: American U., Baylor U., Bucknell U., Carleton College, Carnegie Mellon U., Case Western Reserve U., Central Michigan U., Denison U., Idaho State U., Indiana U., Kent State U., Lawrence U., Lehigh U., Mankato State U., Montana State U., Pennsylvania State U., Portland State U., Princeton U., Stanford U., Tarrant County Junior College, Tulane U., U. of Alaska at Anchorage, U. of California at San Diego, U. of Hawaii, U. of Iowa, U. of Maryland-Baltimore County, U. of Missouri at Columbia, U. of Nebraska at Lincoln, U. of New Orleans, U. of Notre Dame, U. of Pittsburgh, U. of Puget Sound, U. of Virginia, U. of Washington, U. of Wisconsin at Madison, U. of Wisconsin at Milwaukee, Xavier U. (Ohio), and Weber College.

Reports covered sales of hardcover and paperback trade books in January.

2 Law Schools Bar FBI Recruiters

Law schools at both the University of Michigan and the Ohio State University have banned recruiters from the Federal Bureau of Investigation because of a U.S. judge's finding last autumn that the agency systematically discriminated against its Hispanic agents.

The deans of both law schools said their universities had policies that prohibit the use of recruiting facilities by employers who discriminate. However, Ohio State will allow the agency to recruit its students off the campus and to distribute literature to them.

The move by the law schools followed Judge Lucius D. Bunton's ruling that the F.B.I. denied promotions to its Hispanic agents and detailed them to the least rewarding and most hazardous assignments.

6 Protest Animal Lab by Climbing Crane

Six people climbed a 160-foot construction crane at the University of California at Berkeley last week and said they would not come down until the university agreed to abandon work on a new animal-research laboratory.

University officials said they would not negotiate with the protesters.

The three men and three women remained atop the crane on the site of a new six-story genetics and plant biology building, which is adjacent to the target of their protest, the $14-million Northwest Animal Facility. Work was being delayed on both projects because of the demonstration, university officials said.

The protesters defied repeated orders to abandon their perch and demanded that the university halt construction of the laboratory, which they said would increase animal abuse.

New York Public Library Selects Healy as President

GEORGETOWN U.

After 13 years as president of Georgetown University, the Rev. Timothy S. Healy (*above*) will leave this summer to become president and chief executive officer of the New York Public Library.

The library's trustees announced the appointment last week. Father Healy will replace Vartan Gregorian, who has been named president of Brown University.

Georgetown is forming a search committee of trustees, administrators, faculty members, and students to select a new president. Father Healy will assume his responsibilities at the library after his successor is found, a Georgetown spokeswoman said.

Science-Teaching Report Stresses Thinking

The American Association for the Advancement of Science has released a report intended to change the way mathematics and science are taught in the schools during the next decade.

The report, "Science for All Americans," says that literacy in science, mathematics, and technology "has emerged as a central goal of education."

However, the report says such literacy "eludes us" in the United States."

Among other recommendations, the report says students should concentrate more on developing thinking abilities and less on memorizing details. It urges teachers to focus on "connections"—the way one subject area relates to others.

The report is the first phase of Project 2061, the association's effort to revamp science and mathematics education from kindergarten through high school (*The Chronicle*, February 8). It is available for $14.50 from A.A.A.S. Books, Department 2061, Box 753, Waldorf, Md. 20604.

Archbishop Tutu Seeks Seat on Harvard Board

South African Archbishop Desmond Tutu, an outspoken critic of American investments in companies that do business in South Africa, has agreed to run for a position on Harvard University's Board of Overseers.

Archbishop Tutu, who won the Nobel Peace Prize in 1984, has criticized Harvard's South Africa–related investments on several occasions. He will run on a slate of candidates nominated by the Harvard-Radcliffe Alumni/ae Against Apartheid, a pro-divestment group.

Said Robert P. Wolff, a professor of philosophy at the University of Massachusetts at Amherst who is head of the alumni group: "I think it's terribly important that someone of Tutu's stature—which, in an instance like this, is much greater than [Harvard President Derek] Bok's stature—**should not simply speak out but should be willing actively to involve himself in the life of the university in order to lead Harvard into the light."**

The 30-member Board of Overseers advises the university's other governing body, the Harvard Corporation. All of the university's graduates are eligible to vote in the election, which will be held by mail. Results will be announced in June.

Southern Ill. Faculty, Staff Divide in 2 Union Votes

Professional-staff members at Southern Illinois University at Edwardsville voted last week to form a union affiliated with the National Education Association. At the same time, faculty members there chose by a small margin not to be represented by a union.

The professional-staff members, who voted 129 to 85 to unionize, had voted on unionization three months ago. However, all the ballots from the first election were impounded by the state labor board because of challenges over who should be included in the bargaining unit.

Faculty members were voting for a second time, too, because no group had won a clear majority in the first election. In last week's run-off between an N.E.A.-affiliated union and no representative, the faculty voted 220 to 207 not to affiliate.

Faculty and professional-staff members at the university's Carbondale campus and faculty members at the medical school had also voted several months ago not to unionize.

Editorials on Israel Prompt Michigan Protests

FOR SHAME
STOP JEW-BAITING
ROBERT CHASE/THE NEW YORK TIMES

More than 175 students rallied last week at the University of Michigan at Ann Arbor (*above*) to protest what they said were anti-Semitic editorials in the student newspaper.

In recent weeks, the *Michigan Daily* had published several editorials critical of Israel, including one suggesting that Israel may have been responsible for the bombing of Pan American Airways Flight 103 in December. The

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really asking for trouble," says Zelda Gamson, director of the New England Resource Center for Higher Education at the University of Massachusetts at Boston.

"An institution without a tenure system would be a lot less desirable," adds Ms. Gamson, who is also a professor of sociology at the university. "Tenure is something faculty really cherish."

The fundamental goals of tenure are to safeguard academic freedom and to provide a measure of job security to faculty members, according to the A.A.U.P.'s associate general secretary, Jordan E. Kurland. The first formal statement on tenure was made in 1915, when the A.A.U.P. was founded.

Effects of Faculty Shortage in 1990's

For the most part, tenure is alive and well at the vast majority of colleges and universities, according to higher-education officials interviewed on the issue. In fact, the system will probably be strengthened, they say, as large numbers of faculty retirements force colleges to compete vigorously for applicants.

Most experts on higher education are predicting a faculty shortage in the 1990's, which may be exacerbated by a shrinking pool of U.S. doctoral-degree recipients (*The Chronicle*, January 25).

"My feeling is that the faculty shortage will make tenure more secure because the bargaining power of those who are being sought will be enhanced," says Walter P. Metzger, a professor of history at Columbia University and a member of the A.A.U.P.'s Committee A on Academic Freedom and Tenure. The committee studies and interprets tenure policies, and investigates cases in which it believes institutions may be departing from the association's tenure guidelines.

Despite the generally healthy state of tenure, aggressive advocates of tenure say they are concerned by what they perceive to be indirect attacks on the tenure system.

Probationary Period Lengthened

Among the changes that have generated controversy have been the hiring of more part timers and other faculty members who are not eligible for tenure; the use of post-tenure evaluations that can result in dismissal; and the lengthening of the traditional seven-year probationary period before a person can receive tenure.

"A frontal attack on tenure is not being waged, because that could get institutions in trouble," says Mr. Metzger. "But institutions have been nibbling at the edges."

Gene B. Bledsoe, higher-education coordinator for the National Education Association, agrees.

"We used to see a lot of frontal assaults on tenure in the 70's, but now administrators are trying to circumvent the system by hiring more part timers and non-tenure-track faculty," he says. "On some campuses, they're also raising the standard for attaining tenure so that few people qualify."

Among the institutions that have longer-than-average probationary periods is Yale University, which typically reviews a faculty member for tenure in the eighth or ninth year. The A.A.U.P.'s guidelines, which are followed by the vast majority of four-year institutions and virtually all large research universities, call for tenure reviews no later than the sixth year.

Charles H. Long, Yale's deputy pro-

Continued on Following Page

Doctoral Degrees Earned by U.S. Citizens, 1977 to 1987

	American Indian		Asian		Black		Hispanic		White	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
1977	43	22	251	88	684	432	310	113	17,011	6,054
1978	50	10	287	103	584	449	317	156	15,573	6,238
1979	56	25	311	117	551	505	308	154	15,261	6,659
1980	46	29	313	145	499	533	256	156	14,848	7,145
1981	56	29	315	150	499	514	275	189	14,458	7,521
1982	44	33	281	171	483	564	344	191	13,984	7,689
1983	50	30	312	180	412	509	288	250	13,599	8,074
1984	53	20	338	174	427	526	313	222	13,155	8,168
1985	39	56	329	187	379	533	300	261	12,778	7,926
1986	58	41	347	180	321	499	299	268	12,257	8,281
1987	63	53	367	173	317	448	332	266	12,116	8,245

SOURCE: NATIONAL RESEARCH COUNCIL

Decline in Doctorates Earned by Black and White Men Persists, Study Finds; Foreign Students and U.S. Women Fill Gaps

By DENISE K. MAGNER

Black American men earned slightly fewer doctoral degrees in 1987 than in the year before, sustaining a decade-long decline that saw the number of doctorates awarded to them fall by 54 per cent.

A new survey of doctoral recipients at U.S. institutions shows that the number of degrees awarded to American men, over all, fell by 28 per cent from 1977 to 1987, the most recent year for which statistics are available.

A report on the survey, conducted by the National Research Council, is scheduled for release in the next few weeks.

Total Up by 500 Over 10 Years

The greatest proportional drop occurred among U.S. black men, who earned 317 doctorates in 1987, compared to 684 in 1977. The number of white American men receiving doctoral degrees also dropped significantly—from 17,011 in 1977 to 12,116 in 1987. Research doctorates earned by American men with Asian, Hispanic, or American Indian backgrounds increased, although their numbers remained low.

While fewer American men earned Ph.D.s, the total number of students receiving doctorates at the nation's universities increased by about 500 students, to 32,278 in 1987.

Foreign students and American women filled the gaps created by the decline in American men earning doctorates, said Lori Thurgood, research associate at the National Research Council.

Students with temporary or permanent visas earned 22.2 per cent of the doctorates awarded in 1987, compared to 15.2 per cent in 1977. During that time, the share of doctorates earned by U.S. citizens fell from 82.4 to 70.8 per cent.

The total number of women earning doctorates rose by one-third, to 11,370 in 1987. A greater proportion of those receiving doctoral degrees were women—up from 25 per cent in 1977 to 35 per cent in 1987.

Ms. Thurgood noted, however, that the proportion of doctorates earned by women has stalled at about 35 per cent since 1984. While the number of white American women receiving doctorates rose 36 per cent from 1977 to 1987, the number of black American women getting doctorates grew only 4 per cent, and actually declined in 1986 and 1987.

Many of the statistics come as little surprise to university leaders, and serve only to reinforce trends to which they have been alerted in recent years.

'Dangerous State of Decline'

Several explanations are offered for the decline in doctorates earned by American men, and blacks in particular, including deficiencies in earlier education and market trends that offer higher salaries for jobs outside higher education.

Said Charles U. Smith, dean of graduate studies at Florida A & M University: "The black male appears to be in a dangerous state of decline" in both academe and society at large. He laid part of the blame on the Reagan Administration for cutbacks in financial aid for graduate education and ef-

Continued on Page A15

Teacher Educators Told to Stress Both Pedagogy and Subject Matter

ROBERT COHEN

Frank Murray: "We know a lot more about teaching in a scientific way. The knowledge base is a lot more interesting than it used to be."

By BEVERLY T. WATKINS

ANAHEIM, CAL.

Schools of education must make knowledge about subject matter and pedagogy equally important in the preparation of future schoolteachers, says a book being released here this week.

All beginning teachers, regardless of the level at which they plan to work, must have a solid understanding of disciplinary content, teaching methods, and student behavior, as well as of the interaction among all those elements, to be successful in the classroom, says the book, which covers the knowledge that a group of well-known educators and researchers consider essential for new teachers.

Also, the book says, teacher educators should not rely entirely on professors in the disciplines to teach subject matter to prospective schoolteachers, because, it says, there are fundamental differences between scholarly knowledge and the spe-

Continued on Page A16

UNIVERSITY OF MINNESOTA

William E. Gardner: The book is "a major statement of what the knowledge base is, a place to go to see the elements for the content of teacher-education programs."

FACT FILE: Median Salaries of Administrators in 'Secondary' Positions

The following table is a companion to the Fact File of primary administrators' salaries that appeared in *The Chronicle*, February 15. The report of the salary survey was written by Richard C. Creal of the College and University Personnel Association, along with John M. Toller, personnel director at the University of Connecticut, and Jan P. Miller of the NASA Industrial Applications Center at the University of Pittsburgh.

The figures, based on reports from 1,268 colleges and universities, are intended to give only a broad picture of administrative salaries for 1988-89. Comparative analyses between positions or among institutions are available in the full report, or through special studies that may be purchased from the personnel association.

Copies of the report, *1988-89 Administrative Compensation Survey*, may be obtained from the College and University Personnel Association, 1233 20th Street, N.W., Suite 503, Washington 20036; (202) 429-0311.

The price is $55 for association members, $140 for non-members who participated in the survey, and $250 for all other non-members.

	All institutions	1-year change	Doctoral	Comprehensive	Baccalaureate	2-year
Executive						
Assistant to president of a system	$57,240	+14.5%	$64,000	—	—	$44,495
Assistant to president of a single institution	42,000	+4.1%	57,651	$44,380	$35,124	37,800
Academic						
Director, conferences	35,000	+8.2%	44,030	36,000	26,780	34,291
Circulation librarian	25,666	+6.0%	31,876	26,515	20,950	25,000
Acquisitions librarian	29,528	+7.8%	36,800	29,480	24,843	30,906
Technical services librarian	29,185	+5.1%	46,343	31,323	24,600	27,544
Public services librarian	31,545	+5.1%	47,000	32,485	25,200	31,200
Reference librarian	27,500	+6.2%	37,000	28,600	24,548	27,895
Associate director, institutional research	36,011	+4.7%	43,048	35,804	20,150	33,057
Associate director, computer center, academic	37,949	+2.6%	50,268	37,800	26,950	—
Administrative						
Director, health and safety	38,740	+5.4%	49,635	34,200	25,000	—
Director, telecommunications	39,000	+6.2%	49,400	36,000	23,412	36,740
Associate budget director	39,600	+7.4%	46,000	35,700	31,500	30,570
Associate general counsel	48,833	+6.2%	48,833	—	—	—
Associate director, personnel	34,476	+1.5%	44,194	32,765	24,650	33,434
Manager, benefits	29,000	+4.8%	37,284	26,491	22,456	27,381
Manager, training and development	33,771	+4.1%	35,368	29,400	—	—
Manager, employee relations	35,462	+4.2%	37,355	32,355	—	—
Manager, labor relations	47,652	+17.4%	43,100	—	—	—
Manager, employment	28,890	+3.8%	34,100	26,000	3,050	27,745
Manager, wage and salary	32,823	+2.6%	35,443	28,260	18,938	—
Manager, personnel information systems	33,600	+8.4%	37,000	25,132	—	—
Associate director, affirmative action	32,355	+7.8%	32,549	—	—	—
Associate director, computer center	38,957	+5.9%	56,070	40,446	30,480	35,003
Data base administrator	38,148	+1.7%	43,000	36,070	26,500	33,500
Systems analyst, highest level	35,000	+4.9%	37,796	35,484	29,238	32,914
Systems analyst, lowest level	27,408	1.0%	29,004	26,623	22,100	27,759
Programmer analyst, highest level	28,992	+5.0%	31,838	28,870	25,000	28,992
Programmer analyst, lowest level	23,633	+4.8%	24,600	23,823	22,000	22,755
Associate director, computer center, administrative	38,370	+0.6%	50,940	40,950	28,700	31,326
Associate director, physical plant	35,633	+4.3%	51,000	36,300	28,810	31,713
Manager, landscape and grounds	27,250	+5.4%	35,408	27,500	23,200	25,680
Manager, building and maintenance trades	31,197	+6.4%	39,100	30,000	26,700	27,774
Manager, technical trades	33,867	+8.8%	36,600	31,500	28,239	30,280
Manager, custodial services	27,000	+6.3%	34,596	27,700	23,266	24,889
Manager, power plant	34,400	+5.2%	39,544	34,000	29,432	28,188
Manager, payroll	26,950	+4.5%	37,500	27,474	20,820	23,760
Staff accountant, highest level	26,112	+4.5%	29,444	27,000	22,500	25,608
Staff accountant, lowest level	21,557	+7.5%	22,250	21,760	19,000	22,340
Associate bursar	27,600	+3.0%	35,150	24,538	20,000	—
Associate director, purchasing	30,094	+2.7%	39,300	28,370	—	23,550
Associate director, bookstore	23,000	+5.7%	29,589	22,470	16,950	20,316
Manager, mail services	20,400	+4.6%	27,036	20,845	15,715	19,548
Director, medical center public relations	48,000	+1.9%	49,000	—	—	—
Director, medical center personnel	54,996	+12.8%	55,100	—	—	—
External affairs						
Director, annual giving	32,100	+5.0%	42,101	33,516	30,000	26,500
Director, corporate and foundation relations	38,500	+6.5%	49,381	38,500	32,500	34,000
Coordinator, resource development	26,361	+2.9%	31,600	26,361	23,000	—
Director, estate planning	40,643	+3.7%	53,166	39,000	37,800	—
Director, governmental relations	59,844	+4.9%	62,786	54,478	—	—
Associate director, publications	26,110	+10.3%	32,120	26,110	19,800	—
Manager, printing services	28,076	+4.1%	36,587	28,075	20,900	25,200
Student services						
Associate director, admissions	30,000	+8.6%	36,870	30,800	26,840	27,825
Assistant director, admissions	22,913	+7.4%	28,600	24,300	21,000	22,000
Associate registrar	29,807	+1.8%	37,600	30,597	23,244	27,983
Assistant registrar	24,180	+5.0%	28,461	25,500	19,589	24,000
Associate director, student financial aid	25,920	+5.9%	34,400	26,700	20,800	25,573
Associate director, food services	30,000	+4.3%	37,453	29,400	23,000	—
Associate director, student housing	26,617	+0.4%	38,757	25,850	19,968	—
Housing officer, administrative operations	29,887	+3.1%	35,500	25,850	20,000	—
Housing officer, residence life	24,000	+8.6%	34,500	25,000	18,800	22,629
Housing officer, family housing	30,864	+10.6%	31,350	—	—	—
Associate director, student union	29,378	+5.3%	35,196	28,851	21,959	—
Student union business manager	30,000	+7.8%	31,500	28,188	—	—
Associate director, student counseling	31,128	+1.6%	39,544	29,423	24,289	31,128

Note: A dash indicates insufficient data.

SOURCE: COLLEGE AND UNIVERSITY PERSONNEL ASSOCIATION

Colleges Try to Redefine Tenure Policies, but Many Faculty Members Are Wary

Continued from Preceding Page

vost, says the main reason for waiting a few extra years is to give faculty members a chance to reach a level where they would be competitive when a tenure slot opens.

A national search is conducted whenever a tenured position becomes available, he says. "Most people four or five years out of graduate school are not going to be at a level in their profession where they could compete with the top scholars in their field," he adds.

Reasons for scrutinizing tenure vary from institution to institution. Many colleges that hired large numbers of faculty members in the expansive decade of the 60's now have 60 per cent to 80 per cent of their faculty members tenured.

Other institutions were alarmed by the prospect that tenured faculty members might go on working indefinitely after the mandatory-retirement age of 70 is lifted for faculty members. That change, in legislation passed by Congress in 1986, is slated to take effect in 1994. However, a recent study has shown that the expected change in the retirement age will have little effect on how faculty members plan for retirement (*The Chronicle*, February 15).

At some institutions, changes in the tenure system have been initiated by skeptical governing boards that take a dim view of the concept of lifetime tenure.

Seeking Flexibility

At Roberts Wesleyan College, trustees froze the granting of tenure for several years until administrators could come up with a more flexible alternative. The college's president, William C. Crothers, says he shared some of the trustees' concerns.

"One of the concerns I had was that, as a small college, we didn't have the flexibility that larger universities have," he says. "If you have a faculty member who isn't as productive as you would like, in a larger place you can find a position for him somewhere. We don't have the resources to do that."

Under his leadership, the college redefined tenure. The result is a system that is considerably more flexible than the traditional form of tenure advocated by the A.A.U.P., Mr. Crothers says.

To dismiss someone with tenure, he says, the college need not prove gross misconduct, as called for in the A.A.U.P. guidelines. Instead, it must simply show evidence of consistently low evaluations by students, peers, and administrators. Those evaluations are continuous for faculty members—as well as for administrators.

A Way to Insure Vitality

Faculty members who are viewed as having trouble are required to meet with a "faculty-relations committee" (made up of Mr. Crothers, the vice-president for academic affairs, and two senior faculty members) and to come up with specific steps to improve their performance in two years. If they fail to improve they can be dismissed, even if they have tenure.

However, Wayne G. McCown, vice-president for academic affairs, says he is unaware of any cases where someone was actually fired as a result.

Mr. Crothers says the system is an effective way to insure vitality at a small college. (At Roberts Wesleyan, this year's enrollment is around 750.) "If people aren't pulling their weight, they stick out like a sore thumb and we can work with them," he says.

"I think we all need assessment on any level," adds Mr. Crothers, who himself is evaluated every two years.

Gordon College has had what it calls "a system of faculty-growth contracts" since 1976. About 70 per cent of the college's faculty members participate in the voluntary program, which is not tied to tenure or promotion, according to R. Judson Carlberg, dean of the faculty.

"Because we had little turnover in the faculty and a faculty that were moving on in years, we needed a way to infuse them with new ideas and excitement," he says. "We thought about tinkering with the tenure process, and we've come to a conscious choice not to."

Advocates of evaluations that take place after a person has tenure—

4 Colleges Try Alternatives to Tenure

Continued from Page A10

ulty members whom it might otherwise lose if a tenured position were not open.

Azusa Pacific University replaced tenure with a system of contracts, after the college's board of trustees put a moratorium on tenure five years ago. Faculty members typically are eligible for three or more one-year contracts, followed by two three-year contracts and a five-year contract.

The university made the change because it wanted more flexibility, according to Don Grant, vice-president for academic affairs. "We were getting more and more tenured in fields that are not all that assured a future," he says. "This is a way to keep improving and assuring growth. We look at it as a positive change."

The change didn't go over well with some faculty members who accepted what they thought were tenure-track positions at Azusa Pacific. But they seem to have got used to the idea. "There is no grumbling in the ranks now," says David D. Cherney, a professor of biology and chairman of the Department of Science. Mr. Cherney served on a committee that studied the tenure issue several years ago.

The University of Texas of the Permean Basin is in the process of going in the opposite direction, replacing a system that granted tenure for a seven-year period with a more traditional system that grants it indefinitely. The switch is seen as a victory by faculty members who for years have been pushing for a traditional tenure system.

H. Warren Gardner, vice-president for academic affairs, says term tenure seemed like a good idea when the campus opened in 1973. "At the time the institution was opened, it was conceived as an innovative approach to periodically review people and to get away from the permanence of tenure," he says. Although the lack of a traditional tenure policy has not hurt recruiting efforts, administrators were concerned that it might in the future, he adds.

—KATHERINE S. MANGAN

Decline in Doctorates Earned by Black Men Is Found to Persist

Continued from Page A11

forts to dismantle affirmative-action advances.

Others said universities had done a poor job of selling the advantages of a career in teaching and research to American students. "A tremendous number of our brightest young people are now being attracted to master's in business administration or to professional degrees," said Robert L. Ringel, vice-president and dean of the graduate school at Purdue University. "Many professional schools have done an excellent job of marketing these careers. I don't think universities have done enough to show what a fantastic career opportunity is available by joining the faculty of an institution."

Need for More Fellowships Seen

Whatever the reason for the decline, several educators said the statistics reinforced the need for state and federal governments to finance more fellowships.

Robert M. Rosenzweig, president of the Association of American Universities, said fellowships offer practical and symbolic support to students by showing that society values professors and research.

A common misperception is that foreign students are displacing American students in graduate schools, but that is not the case, according to several officials. "Every time people ask me about the 'foreign-student problem,' I tell them that it's not the foreign-student problem, it's the U.S.-student problem," said Frank E. Perkins, dean of the graduate school at the Massachusetts Institute of Technology.

"With the declining interest among U.S. citizens in research doctorate programs, colleges have to keep the programs going, so they fill them up with foreign applicants. There is certainly no shortage of foreign applicants."

2 Categories of Foreign Students

Foreign students are classified in two categories in the research council's survey—those with temporary and those with permanent visas. The survey found that 75 per cent of those with permanent visas planned to seek employment or do postdoctoral work in the United States once they finished doctoral work. Meanwhile, about 48 per cent of those with temporary visas planned to remain in this country after earning their doctorate.

"We are getting the benefit of a large pool of labor that we don't have to educate from grade one through high school," Mr. Rosenzweig said. "I don't see that as a problem."

Dozens of universities have announced programs to increase the recruitment of minorities at the undergraduate level and to attract more of them to the teaching profession. M.I.T., for instance, offers a summer science program for undergraduates from the nation's black colleges. Florida A&M sends the names of top black students to graduate schools and asks the schools to reserve financial-aid packages for them. But most officials said it would be several years before they could assess whether the programs had resulted in more research doctorates for members of minority groups.

Graduate schools need to correct misunderstandings about doctoral work, said Clara Sue Kidwell, dean-in-residence at the Council of Graduate Schools and a professor of American Indian studies at the University of California at Berkeley. One misperception, she said, is that all graduate students are struggling to repay huge college costs in the face of low salaries. While students at professional schools may face a high debt burden once they graduate, most of those seeking doctorates finance their education through teaching and research positions, fellowships, and a limited number of federal grants, she said.

According to the survey, 54 per cent of the doctorate recipients said they faced no debt burden upon graduation. Of the 46 per cent who did, the average debt was about $7,000, which officials said is manageable.

"I think that where we really need to start grooming people for graduate school is at the high school level," said Ms. Kidwell. "Going to graduate school is a state of mind. You go because a subject excites you and you find out someone will pay you for studying it. We have to sell students early that learning can be fun and provide exciting opportunities."

New Computer Software for Higher Education

The following list of computer software has been compiled from information provided by the publishers or by companies marketing the programs. Prices are subject to change without notice. For information about specific applications and hardware requirements, contact the publishers or companies directly.

ACADEMIC COMPUTING

Analysis. "Lessons in Reading and Reasoning," for Amiga, Apple II series, Apple Macintosh, and I.B.M. PC series and compatibles. Four programs contain tutorials on evaluating written information; focus is on 20 logic fallacies such as rationalization, use of false authorities, loaded words, inadequate data, circular reasoning, and false analogies; $149.95. Contact: Queue, 562 Boston Avenue, Bridgeport, Conn. 06610; (800) 335-0908.

Chinese. "Cantonese," for I.B.M. PC series and compatibles. Tutorial in spoken Cantonese; $15. Contact: Louie Crew, Dragon Disks, P.O. Box 1545, Orangeburg, S.C. 29116; (803) 533-0017.

Computer science. "Fileops," for DEC VAX. Tutorial on file operations; $600, $300 for education institutions. Contact: Clearinghouse for Academic Software, Computation Center, 104 Computer Science Building, Iowa State University, Ames, Iowa 50011; (515) 294-0323.

Data management. "Tabularium," for Apple Macintosh. Requires "HyperCard." Allows user to transfer data from any data base to "HyperCard" stacks and vice versa; can handle large amounts of information; $49.95. Contact: All-American Software Development Corp., 5612 International Parkway, Minneapolis 55428; (612) 537-8910.

Engineering. "ACTON: AutoCAD to NASTRAN Translator," for I.B.M. PC series and compatibles. Allows user to quickly generate small finite-element models for use with the NASTRAN finite-element modeling program; $200; documentation, $11. Contact: COSMIC, University of Georgia, 382 East Broad Street, Athens, Ga. 30602; (404) 542-3265.

Logic. "Truthtab," for Apple Macintosh and I.B.M. PC series and compatibles. Requires a Pascal compiler. Calculates and prints truth tables for expressions in two-valued or multiple-valued propositional logic; $40, "shareware" license comes with software. Contact: Edward G. Nilges, P.O. Box 16, Kingston, N.J. 08528.

Programming. "Virtual Frame Buffer Interface," for DEC VAX. Makes all frame buffers appear as a generic frame buffer with a standard specified set of characteristics, allowing programmers to write code that will run on all supported hardware without modification; converts generic commands to actual device commands; supports ADAGE IK3000, DEANZA IP8500, Low Resolution RAMTEK 9460, and High Resolution RAMTEK 9460 frame buffers; includes source code; $900; documentation, $24. Contact: COSMIC, University of Georgia, 382 East Broad Street, Athens, Ga. 30602; (404) 542-3265.

Signal processing. "MOSK," for DEC VAX. Requires array processor. Automated mosaicking algorithm for generating images from several Synthetic Aperture Radar passes; $600; documentation, $15. Contact: COSMIC, University of Georgia, 382 East Broad Street, Athens, Ga. 30602; (404) 542-3265.

Spanish. "Spanish Microtutor," I.B.M. PC series and compatibles. Tutorial for first-semester Spanish grammar; $15. Contact: College Department, Harcourt Brace Jovanovich Inc., 1250 Sixth Avenue, San Diego 92101; (800) 237-2665.

Writing. "The Writing Tutor," for I.B.M. PC series and compatibles. Tutorial and word-processing software to help students with "pre-writing" strategies such as tagmemics, topoi, heuristic questions, problem solving, freewriting, and drawing on personal experience; $16. Contact: College Department, Harcourt Brace Jovanovich Inc., 1250 Sixth Avenue, San Diego 92101; (800) 237-2665.

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Ways & Means

Sen. Edward M. Kennedy, the Massachusetts Democrat who heads the Senate education committee, last week unveiled his plan to encourage high-school and college students to volunteer in their communities.

The legislation, which Mr. Kennedy is expected to introduce formally soon, avoids the controversial issue of linking community service to student aid. A bill recently introduced by Sen. Sam Nunn, the Georgia Democrat, has been harshly criticized by college officials because it would require students to serve in their communities or in the military before they could qualify for federal grants or loans to attend college.

Senator Kennedy's plan would authorize the federal government to spend about $500-million in grants over five years to help states begin community-service programs or to improve existing ones.

Mr. Kennedy, whose committee must consider any community-service legislation before it is approved by Congress, did not criticize Mr. Nunn's plan. But he said: "We do not have to compel young Americans to serve their country. All we have to do is ask and provide the opportunity."

■

Meanwhile, Senator Nunn said he was not interested in backing down from his plan to require students to serve before they could receive aid.

Some education officials have suggested that Congress maintain the current array of federal aid programs and simply allow students who serve to get extra money. But Mr. Nunn, appearing on Public Television's MacNeil / Lehrer NewsHour, said the federal government could not afford such an effort.

"We're not going to throw in the towel to the education establishment that wants to add this on to everything else, because we don't have the money to do that," he said.

■

President Bush took his own message on volunteerism to Washington University last month in what was his first speech to a college audience since he took office in January.

"From now on in America, any definition of a successful life must include serving others—in a child-care center, the corporate board room, in the Rotary, or Little League, or a tutoring program, or a church or synagogue," Mr. Bush told an audience of about 4,000.

Mr. Bush described his own proposal to encourage community service among young people—Youth Entering Service, or YES. Under that plan, federal and private funds would be distributed to state and local agencies that coordinate volunteer programs. The plan would not alter current student-aid programs. After his talk, Mr. Bush ate lunch with a group of students involved in volunteer activities.

Government & Politics

Congressional Practice of Earmarking Research Grants Does Not Broaden Allocation of Funds, Study Finds

Some supporters of the process question the accuracy of the conclusions by U. of California analyst

By COLLEEN CORDES

A controversial new study from the University of California concludes that the Congressional practice of earmarking money for specific campuses is not an effective way to broaden the geographic distribution of federal funds for science and technology.

Many supporters of the practice have argued that the traditional system for deciding where to spend federal money—competitive reviews of merit—is biased and perpetuates the *status quo* of institutional and geographic "haves" and "have-nots."

They say that Congress, by earmarking money for specific campus projects, can make sure that the have-nots receive more of their fair share.

No one denies that the bulk of federal research support is concentrated in relatively few states and institutions. In fiscal 1987, for example, the universities in just five states spent 46 per cent of all federal research and development support. The geographic concentration has been of particular concern to many members of Congress, who believe that their states need such support.

But James Savage, principal federal relations analyst for the University of California system and the author of the new study, says the earmarking has had similar results, particularly in terms of concentrating money geographically.

(The University of California has long opposed earmarking on campus projects, and Mr. Savage found it had received $140,000 in earmarked funds in the last 10 years.)

"A handful of states and institutions receive these funds, and many of the states already are major recipients of federal academic research funds," Mr. Savage says in a statement explaining his study. "I call this double-dipping."

Some supporters of the practice, however, question the accuracy of Mr. Savage's statistics and his conclusions. They argue that even his numbers show that many of the institutions that received earmarked money otherwise obtain little federal support for research, and that many of them are in states that have not fared well in competitive merit reviews.

Observers on both sides of the debate, including Mr. Savage, say the study does point out the need for more systematic, effective ways to help states and institutions develop their capacity to compete for federal research money.

5 States Got 42 Pct. of Money

Just five states received nearly 42 per cent of all the money that Congress earmarked for specific universities and colleges from fiscal 1980 through fiscal 1989, according to Mr. Savage's analysis.

Three of the five—Massachusetts, New York, and Illinois—are also among the top 10 in winning overall federal research and development support. Most of that money

Continued on Page A22

U.S. Acts to Suspend Aid to 3 Trade Schools; Critics Say It Isn't Being Tough Enough

By ROBIN WILSON

WASHINGTON

The federal government has taken action against three of the top recipients of federal student aid in recent months as part of a crackdown on for-profit trade schools.

Administration officials have been publicizing the actions, saying they are pleased with the tactics they are using. But critics say the Education Department has not been tough enough on the institutions, also known as proprietary schools, and that its recent action came only after years of ignoring problems at the schools.

"Finally, after months and months of horror stories about damaged students, false promises, and scandalous behavior on the part of some proprietary schools, the department is taking action," says Michael Lance, an aide to Republican members of the House Postsecondary Education Subcommittee.

Proprietary schools train students for a variety of jobs, ranging from computer technician to beautician to medical assistant. Over the last six months, the Education Department and the Justice Department have joined forces to attack what they say are fraudulent activities at three of the nation's largest schools.

In those cases, the Education Department has:

- Stripped all student aid from a chain of Florida trade schools where the department charged that officials had forged students' signatures on aid applications and obtained aid for students who did not qualify. The six business schools, operated by the Robert Fiance Corporation, have been barred from receiving federal student aid for a year and a half and fined $1.5-million, the largest penalty the department has ever levied against an institution. The schools received $100-million in federal loan and grant money from students over the last three years.
- Suspended aid to a chain of Florida beauty schools following the Justice Department's indictment of the chain's owner and 18 other top employees on charges of conspiring to defraud the Education Department of student-aid money. An administrative hearing regarding the suspension of the Wilfred American Educational Corporation, whose students have been re-

Continued on Page A20

Governors to Ask States to Improve International-Education Programs

By SCOTT JASCHIK

WASHINGTON

The National Governors' Association will call on state governments this week to expand and improve international-education programs.

In a report prepared for the governors' winter meeting here, the association will say that "international education must be an integral part of the education of every student," and will urge states to put more money into international education, to provide the opportunity to learn foreign languages at a younger age, and to introduce more requirements that students become proficient in geography, foreign cultures, and foreign languages.

The report says that some states, colleges, and schools have taken steps to improve international education. But it calls such efforts "pockets of progress in an otherwise indifferent America."

The report is part of the association's year-long effort, called "America in Transition: the International Frontier," to study the way states should respond to changes in the international economy.

The governors' study says international education is important for several reasons. It notes that the economic success of individual states, and the entire country, may depend on Americans' becoming more knowledgeable about the rest of the world.

Help for Poultry Farmers

The report cites numerous cases of knowledge of foreign countries leading to economic advancement at home. Virginia's Gov. Gerald L. Baliles, for example, while on a trip to Hong Kong, found out that chickens' feet are considered a delicacy there, and then helped Virginia poultry farmers, who had been discarding the feet, to sell them in Asia.

In an introduction to the report, Gover-

Continued on Page A19

JAY PAUL

Gov. Gerald L. Baliles of Virginia: "How are our firms to provide international leadership when our schools are producing insular students?"

High-School Graduates: Some States Face Sharp Drops, Others Growth

Continued from Page A1

for the State Council of Higher Education for Virginia.

"With the high-school enrollment dip and the weakened economy, we guessed that students would stay home and go to community colleges and urban institutions. We were wrong. They went away to residential institutions. We didn't expect to see community colleges lose enrollment."

The miscalculations of past enrollment changes differ from state to state, but analysts nationally say their experiences have given them the information they need to help smooth higher education's transition from the baby-boom era to the 21st century, when interstate migration and demographic patterns will alter the size and composition of high-school graduating classes.

In states facing enrollment drops, primarily those in the "rust belt," higher-education systems are developing programs to enhance college-going and retention rates, and predict that they will be able to maintain or even augment college enrollments. Mr. Alessio and his counterparts in states facing a gradual increase say they have time to prepare for the predicted mid-1990's surge in high-school graduates.

Increases in South and West

The issue is most pressing in states—mostly in the South and West—that are now expecting dramatic enrollment growth. In those states, system administrators are trying to convince state lawmakers that now is the time to lift enrollment caps, upgrade instructional programs, and expand facilities.

Until those steps are accomplished, they say the only way they can manage growth at overcrowded institutions is by toughening admission requirements and turning away qualified applicants.

"For the next six years, I think the university system will be closed off to more and more people," says Thomas K. Wetherell, chairman of the Florida House of Representatives Appropriations Committee.

For example, Florida State University stopped accepting applications for its fall semester in early February because it already had received 12,000 applications for its freshman class of 2,700. About 1,000 of the applicants had grade-point averages of 3.8 or better.

As the competition for admission to Florida's leading universities becomes even more fierce, enrollment pressures on the state's community colleges will heighten as well, says Representative Wetherell, who is also vice-president for planning and development at Daytona Beach Community College. This year, enrollments have climbed by more than 5 per cent at 21 of the state's 28 community-college systems, he says.

Other Agencies Seek Funds

Such pressures are also expected to build in about a dozen other states that are expected to experience double-digit increases in the number of high-school graduates from 1986 to 2004, according to the Western Interstate Commission for Higher Education (*The Chronicle*, May 4, 1988).

The problem for college officials is that other state agencies are under pressure from increasing state populations and are clamoring for additional financing, as well, Mr. Wetherell says. Demands are increasing for transportation, the criminal-justice system, and senior citizens.

"We're just forced into a situation where we have to reduce the number of classes offered, and at the same time, we have to increase class sizes," Mr. Wetherell says.

Charles B. Reed, chancellor of the State University System of Florida, has tried to manage enrollment by allowing individual institutions to raise admission standards.

But even that approach has not had the effect Mr. Reed expected.

"As we increased our admission standards, we got better students and better retention rates. It has put even more pressure on us for expansion," Mr. Reed says.

Attempts to control enrollment by raising admission standards failed to keep enrollments from soaring past the 50,000 mark at the University of Texas at Austin.

"College enrollments always go up in tough times, and Texas has been going through some tough economic times," says Ronald M. Brown, vice-president for student affairs.

Administrators at the Austin campus increased admission standards last fall and will continue to tighten them in the hope of eventually reducing the enrollment to 46,000 or 47,000, Mr. Brown says.

Cuts Proposed in Texas

The overcrowding at the University of Texas at Austin and at Texas A&M University is the exception in Texas. In general, the state has the facilities it needs to accommodate the Western Interstate Commission's projections of a 22-per-cent surge in the number of high-school graduates from 1986 to 2004, says Texas Rep. Wilhelmina R. Delco.

Says Ms. Delco, chairwoman of the House Higher Education Committee: "What this state needs to do is to invest in equipment and faculty salaries. You can't mouth all the rhetoric about being an 'Education President' or an 'Education Governor' and propose cuts in education funding."

Yet that is what Texas higher-education administrators are facing. The Legislative Budget Board, an influential committee that develops a budget for the Legislature to consider, proposed a 5-per-cent cut in state financing for higher education for the next biennium.

Because of the proposed cuts, Texas officials who otherwise would be preparing for the anticipated growth in enrollment will be focusing on preventing losses this year. Other states, however, are starting the long-range planning to prepare for the onslaught of new students.

In California, David P. Gardner, president of the University of California, announced recently that the university system needed three new campuses. Although the financing is not in place, the chairman of the Assembly Subcommittee on Higher Education is drafting a $1-billion bond measure for the 1990 ballot that would provide funds for some of the expansion needed for the California Postsecondary Education Commission's estimated 30-per-cent increase in postsecondary enrollment.

And by the end of this year, the California Postsecondary Education Commission should have a comprehensive plan for expanding the state's higher-education system.

In Utah, the Board of Regents recently purchased a closed high school in Salt Lake City to convert it into a branch campus for the community-college system.

In Washington State, the Higher Education Coordinating Board is trying to persuade its Legislature to speed the development of branch campuses so that residents in Bothell, Spokane, Tacoma, the Tri-Cities, and Vancouver will have better access to upper-division programs.

The success of those efforts will largely depend on the willingness of legislators to pay for them. And legislators and college lobbyists say that obtaining additional state financial support will be difficult. Says Florida's Mr. Wetherell: "No one is prepared to pass taxes to increase funding. It's kind of like everybody wants to go to heaven, but nobody wants to die. Growth simply does not pay for itself."

20-Pct. Drop for Pennsylvania

Ironically, some of the states looking at enrollment decreases are less worried about adequate state support—at least for now.

In Pennsylvania, for example, officials predict a 20-per-cent drop in the number of high-school graduates by 1995, but no one is expecting the state to cut its support for higher education. Pennsylvania entered the fiscal year with a budget surplus, and the Governor has proposed giving higher-education an additional 7 per cent in 1989-90.

There is a continued push for additional higher-education funding because the number of applications is growing as more people decide they want a higher education, says Kerry L. Moyer, director of system research and planning for the Pennsylvania State System of Higher Education. For example, Mr. Moyer says that in 1977, 186,000 students graduated from high school and 80,000 went on to postsecondary education. Ten years later, the number of high-school graduates had dropped to 143,000, but 80,000 still went on to postsecondary education.

"Historically, the participation rates in Pennsylvania have been low, so now we're catching up," he says.

That fact has allowed Pennsylvania's public colleges and universities even to increase enrollments, as has been the case at Pennsylvania State University.

'We Stepped Up Recruitment'

Says Robert E. Dunham, vice-president and vice-provost there: "We stepped up our recruitment and marketing before we saw that slump, and I think that helped us. I wouldn't want to bet my last dollar on it, but I think we're going to weather this period pretty well."

The economic history of the rust belt is also a factor in college enrollment growth in that region, says Clyde R. Ingle, Indiana's commissioner of higher education.

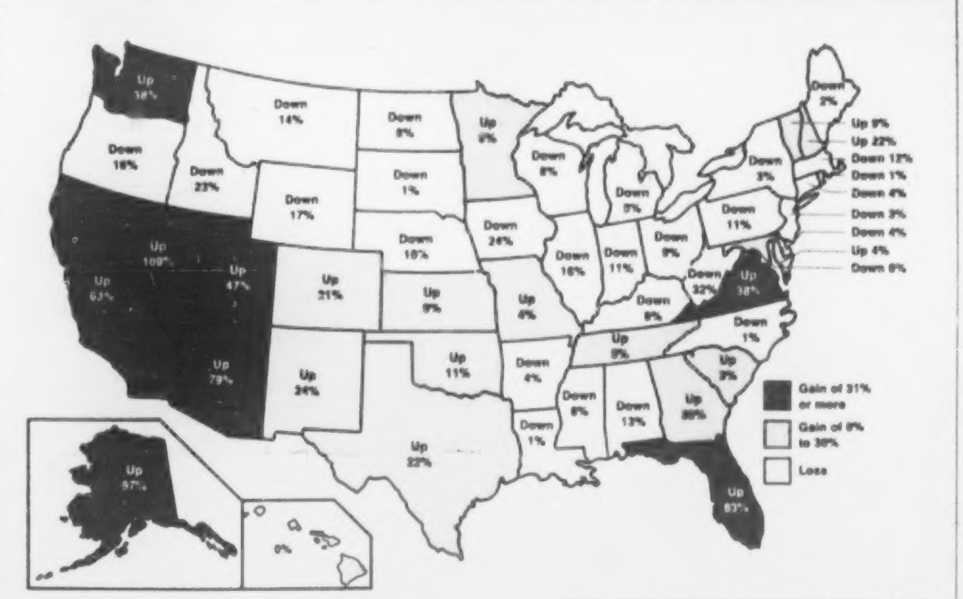
"Parents tell their sons and daughters, 'I got a pretty good job at Ford, but I'm going to be replaced by a robot, so you have to go to college,'" says Mr. Ingle.

In Indiana, institutions are designing recruitment programs for ninth-graders and are working with secondary-school systems to help students get any remedial help they may need.

Similar programs are being developed in Oregon—the only Pacific Coast state to anticipate a drop in its high-school graduating-class size.

Despite that drop, higher-education enrollments have been rising, says John G. Westine, policy analyst for the Oregon Office of Education

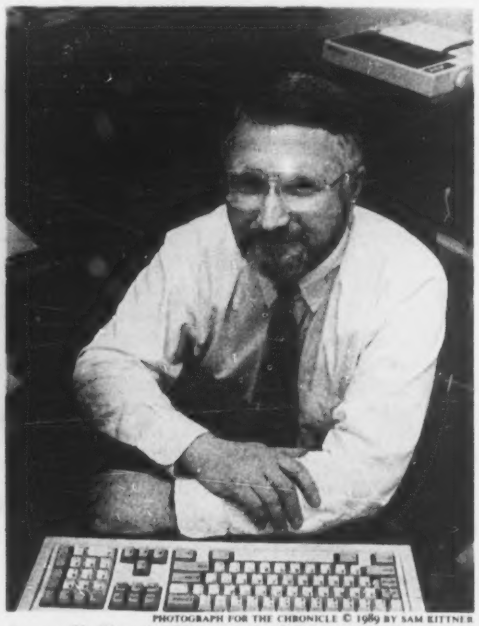
Changes in Number of High-School Graduates, 1986-2004



SOURCE: WESTERN INTERSTATE COMMISSION FOR HIGHER EDUCATION

PHOTOGRAPH FOR THE CHRONICLE BY ROSE PROUSER

Kerry L. Moyer: "Historically, the participation rates in Pennsylvania have been low, so now we're catching up."



PHOTOGRAPH FOR THE CHRONICLE © 1989 BY SAM KITTNER

James M. Alessio: "We guessed that students would stay home and go to community colleges and urban institutions. We were wrong."

Policy and Planning. "And our current projections show virtually flat enrollments until 1996, with a slight decline in independent institutions," Mr. Westine says.

Indeed, college planners caution hat past predictions of declines in college enrollments have not materialized. Says Mr. Alessio of Virginia: "If you remember, in the late 1970's you couldn't pick up a paper without reading an article about how we were ll going to be without jobs. And that idn't happen."

What Will Students Decide?

Even if the huge enrollment shifts lo not occur, the expected changes hould prompt consideration of what tudents should be learning and how hey are taught, says Gordon K. Davies, director of the State Council of Higher Education for Virginia. Educators need to decide whether areas of study will be combined to form new colleges and centers for learning and whether pilot programs with telecommunications will lead to new methods of teaching, he says.

The Virginia state council staff estimates that the number of high-school graduates will grow by 13 per ent by early in the 21st century. Mr. Davies says: "I'm interested in using rowth to improve higher education."

But for all their planning, state officials acknowledge that because the ecision to attend college is a voluntary one, no one can be sure what omorrow's student will decide.

"You can help direct where students go, but you can't control where hey go. You can put caps on institutions, but that does not change demand," Mr. Alessio says. "That's omething we've come to realize."

STATE NOTES

States Start College Efforts for High-School Students

High-school students in a handful of states can now enroll in postsecondary institutions to earn credit toward graduating from high school, college, or both, according to a report recently issued by the Education Commission of the States.

The laws enacted in Arizona, Colorado, Florida, Louisiana, Minnesota, and Washington were designed to serve many purposes. Students considered likely to drop out of high school may be encouraged to remain in school by pursuing vocational degrees, and academically talented students may be rewarded by allowing them to enroll early in college courses.

The survey reported on trends in state activities that allow greater choice for public high-school students and their parents.

The college programs limit participation to students now in their junior or senior year of high school. Lawmakers in the states said they viewed those years as critical because many students choose to drop out at that age.

Some plans encourage talented high-school students to enroll at an early age in state colleges and universities. Lawmakers in the past have approved similar plans to encourage academically talented, college-age students to attend institutions in the state.

In Colorado, Florida, Minnesota, and Washington, the state pays the cost of college for high-school students participating in the programs.

According to the report, Arizona adopted its law five years ago, but most states passed bills in the last legislative session, and officials at E.C.S. have said many other states are considering adopting similar plans. —COURTNEY LEATHERMAN

Mass. Regents Seek Policy on College Trust Funds

The chairman of the Massachusetts Board of Regents of Higher Education has appointed a retired businessman to head a three-member commission to develop guidelines for the use of state-college trust funds.

William R. Thurston, former president of GenRad Inc., an electronics company, will select the panel's other two members.

The chairman of the regents, Paul E. Tsongas, a former U.S. Senator, said the commission was necessary because the trust-fund issue "is bleeding us terribly, and this is going to go on forever until there is some formal set of guidelines."

The trust funds kept by state colleges in Massachusetts come from a variety of sources, such as revenues from campus bookstores and parking lots, and are intended to be used for such "extras" as campus improvements and fees for guest speakers. However, the trust funds have been a source of continuing conflict in recent years, amid allegations that college presidents have used them improperly for their personal expenses.

In the past two years, five state-college presidents in Massachusetts have been forced to resign, at least in part because of charges they misused campus trust funds.

South Dakota State Colleges Become State Universities

With a few strokes of his pen, South Dakota Gov. George S. Mickelson turned three South Dakota state colleges into state universities.

In July Dakota State, Northern State and Black Hills State Colleges will officially change their names and move up a notch in the state's higher-education hierarchy.

"This is an opportunity for us to grow as institutions. It should help in student and faculty recruitment. We should have a better chance when competing for grants," said a spokesman for Black Hills State College.

The proposed name change was controversial (*The Chronicle*, January 25). Proponents argued that state universities receive more state support, but that was one of the key reasons why critics of so-called "name inflation" opposed the change. The critics said the state colleges did not have the academic programs to merit the designation "university."

Governor Mickelson, a Republican, vetoed an attempt to upgrade the state colleges last year, in part because of the fiscal implications, his press spokeswoman said. The measure Governor Mickelson signed specifically stated that the new state universities would not receive additional money from the state, she said.

Students at the University of South Dakota, however, still fear that the new state universities will be a drain on the state funds that their institution receives for research and graduate studies, and they have initiated a petition drive to place the name-change question on a 1990 state ballot. —MARY CRYSTAL CAGE

Texas Loan Agency Seeks to Limit Default Rates

The Texas Guaranteed Student Loan Corporation has announced measures to crack down on colleges and proprietary schools with high student-loan default rates.

Under the Texas plan, the agency will require any postsecondary institution in the state where more than 30 per cent of former students have failed to repay their Stafford Student Loans to develop plans to reduce defaults. Institutions that fail to provide the guarantee agency with plans, including information on recruiting procedures, dropout and placement rates, and course offerings, risk losing loans backed by the state agency and would be forced to send their students to agencies outside of Texas.

The state guarantee agency acts as a go-between to insure lenders that the federal government will reimburse them for any loans that student borrowers fail to repay. Texas students attending institutions that were cut off from loans guaranteed by the state agency could still take out loans elsewhere.

Texas officials and some Congressional aides, however, have said they believe other state agencies will follow with similar actions.

Currently, 85 institutions in the state have default rates that are more than 30 per cent. Seventy-five of those are for-profit trade schools. Institutions that adhere to the new procedures and still fail to reduce defaults would not be cut off from loans guaranteed by the state agency under the policy. —C.L.

Better International Programs Sought

Continued from Page A17

nor Baliles, a Democrat who is the association's chairman, says: "How are we to sell our products in a global economy when we neglect to learn the languages of the customer? How are we to open overseas markets when other cultures are only dimly understood? How are our firms to provide international leadership when our schools are producing insular students?"

The report also maintains that Americans will benefit from more international education because they will be better able to understand the many ethnic groups in this country. Noting that 84 languages are spoken by residents of the Los Angeles area, the report says: "An increased emphasis on international education in schools and colleges will help everyone understand and interact with their neighbors, classmates, and co-workers."

More Requirements Proposed

Following are some of the specific recommendations of the report:

- Colleges and universities should require more study of foreign languages and international issues for both admission and graduation. Such requirements, the report says, will improve the quality of incoming college students and will press high schools to add more international courses.
- College departments should be required to include an "international element" in all majors. Such an element might be a language requirement, courses comparing the discipline in various countries, or study abroad.
- Business schools should require their students to learn more about other nations, and offer special courses on international subjects for those already working in business.
- States should create and finance programs that allow colleges to provide assistance on international studies to public schools.
- College students should be encouraged to study abroad.
- Teacher-education programs should require more study of geography, world history, and foreign languages. The report adds that teacher-certification tests should also require candidates to demonstrate knowledge in those areas.

The report acknowledges that governors cannot enact all of the changes overnight, or by themselves.

"States influence the direction of public colleges and universities. But there are limits to this influence," the report says. "They can not dictate the curriculum that is offered on state campuses nor mandate cooperation between the college classroom and business."

But the report goes on to say that governors are uniquely suited to promote their agenda on international education because of their current role in seeking improvements in the quality of higher education and in forging links between states and other countries.

The report recommends that governors, together with other politicians, educators, and business leaders, develop comprehensive plans for their states, including steps to improve international study at all levels of education.

The report is available for $10.95 from the National Governors' Association Publications Office, 444 North Capitol Street, Suite 250, Washington 20001-1572.

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Earmarking of Funds for Universities Questioned in Study

Continued from Page A17

is based on the more traditional, competitive review system.

About 63 per cent of the earmarked money was divided up by 10 states. Only one of the 10—West Virginia—ranks in the bottom 10 in terms of total federal research and development support.

Over all, Mr. Savage found, the 10 states that rank the lowest in overall research support have won less than 8 per cent of the money that Congress has earmarked for specific campus projects.

And some institutions, including some members of the prestigious Association of American Universities, have been winners under both systems. The association represents many of the leading research institutions in the United States. Mr. Savage found that A.A.U. members had collected about 30 per cent of all the money that Congress earmarked for universities in the 10-year period.

Mr. Savage compiled and analyzed data from legislation and lists of such projects assembled by the Congressional Research Service for most of those years.

He does not claim that his analysis includes all of the money that Congress actually earmarked for such projects. Identifying the projects is often difficult, given the dexterity of Congress in tucking obscure descriptions of such items into spending laws and the Congressional reports that accompany such laws. No single, generally accepted definition for such projects exists.

Robert M. Rosenzweig, president of the Association of American Universities, for example, says that much of the money Mr. Savage covered in his study came from the Department of Agriculture.

Long Tradition for Agriculture

Mr. Rosenzweig argues that many of those projects should not be included with the others because Congress has a long tradition of earmarking for specific universities most of the money that is available for agricultural research. He also cites the special relationship, long established in law, between the federal government and the land-grant institutions.

Some critics and supporters of the Congressional practice of earmarking say Mr. Savage's findings are not surprising.

Robert L. Park, executive director of the Washington office of the American Physical Society, has been an ardent opponent of the practice. He says the states that fare poorly under the peer-review system generally have fewer scientists and engineers and less research activity than the states that do well, making them less likely to seek earmarked money for research.

"It just sort of shows the inevitability of it," Mr. Park adds. "You can't put money where there isn't anything."

Others say the analysis demonstrates that political power, not need, is often the main determinant of which institutions and states will receive money directly from Congress. Massachusetts, for example, won the most money for earmarked projects, according to Mr. Savage's analysis. It also has had a very powerful Congressional delegation.

"The only thing earmarking tests is the political muscle of the earmarker," says Rep. Sherwood L. Boehlert, a New York Republican.

But Roy Meyers, communications director for the lobbying company Cassidy and Associates, interprets Mr. Savage's data as showing that there has indeed been a much wider geographic distribution of federal dollars through the earmarking process than under peer review. A wide range of states that normally are far down the list in terms of federal research support, including several from the South, ranked comparatively much better in the earmarking process, says Mr. Meyers, whose company lobbies for such projects.

Many institutions that receive little federal research support, he adds, are among those to which Congress has directed the most money.

Different Conclusions Drawn

Mr. Meyers, after a preliminary look at Mr. Savage's totals, also suggests that Mr. Savage's data for some of the institutions that are Cassidy clients may be inaccurate.

Another study, by undergraduate students at the California Institute of Technology, reached conclusions different from Mr. Savage's. That study examined data from just one year, fiscal 1986. It concluded that earmarked money had gone primarily to universities that could be considered have-nots.

The top 20 universities in terms of total federal support for research and development received only 1.3 per cent of all the money that was earmarked, it found. Universities that were not in the top 100 received 71 per cent of the money that Congress set aside for specific institutions.

The study, which was supervised by Bruce Cain, a professor of political science at Caltech, also concluded that the argument that earmarking channels money to states that otherwise receive little federal research money "is only partially supported by the facts." The states in that situation that benefited the most, it added, were Alabama, Florida, Mississippi, Iowa, Oregon, and South Carolina.

Eamon M. Kelly, president of Tulane University, agrees with Mr. Savage that the earmarking system does not result in an equitable distribution of federal money. (Tulane ranks 18th on Mr. Savage's list of institutions receiving earmarked money.) But neither does the peer-review system, Mr. Kelly says.

What is needed, he adds, are national programs to broaden the scientific and engineering base of the country to make sure that students throughout the United States have access to science education of high quality—and that the economic benefits of research spending are equitably distributed. A broader base is needed, Mr. Kelly says, to increase the number of scientists and engineers and to actually improve the quality of research.

Mr. Kelly and others praise a National Science Foundation program that allows the have-not states to compete for money to strengthen their ability to compete under the peer-review system. A new organization to be formed next month will lobby to expand the model to other agencies and to increase the money being spent on it. Others suggest that the government should set aside some money in research competitions for similar kinds of efforts.

"In all public policy there has to be a balance between equity and efficiency," Mr. Kelly says. "When the level of inequity is so high, it actually builds inefficiency, and you get something like the earmarking approach."

Sullivan Declines to Endorse Ban on Fetal-Tissue Research

By MARY CRYSTAL CAGE

WASHINGTON

Louis W. Sullivan, President Bush's nominee to be Secretary of Health and Human Services, said last week that he would oppose "any blanket prohibition" against fetal-tissue research, but he also declined to endorse such research efforts.

Dr. Sullivan, the president of the Morehouse School of Medicine, made his statements during a hearing of the Senate Finance Committee, which recommended that he be confirmed. The full Senate is expected to follow suit this week.

The nomination was threatened last month by a firestorm of opposition that Dr. Sullivan ignited when he reportedly said he favored allowing women to have abortions.

Subsequent statements by Dr. Sullivan that he opposes abortion have satisfied most of his critics. But a leading Senate opponent of abortion used last week's hearing to grill him about abortion and fetal-tissue research. In recent years, scientists have been using tissue from aborted fetuses to conduct research on such maladies as Parkinson's Disease, and abortion foes have pressed for a ban on the research, saying it legitimizes and encourages abortions.

Sen. William L. Armstrong, a Colorado Republican, said he could not vote for Dr. Sullivan because of his answers on the use of fetal tissue.

Moratorium to Remain Intact

Dr. Sullivan, recalling his earlier conversation with the Senator, told the committee: "I expressed reservations about any blanket prohibition on any research. I think that's very dangerous, but I was not endorsing fetal research."

Dr. Sullivan said he still stood by that position.

He said that until he has an opportunity to review the report by the 21-member National Institute of Health advisory panel, a Department of Health and Human Services moratorium on fetal-tissue research would remain intact. That ban, started last year, prohibits the use of federal funds to finance research on the transplantation of fetal tissue from abortions.

Senator Armstrong criticized his response, saying, "Basically, what you've decided to do is to not answer this committee."

Judith A. Brown, president of the American Life League, an anti-abortion organization, told the committee that Dr. Sullivan's comments were "simply another attempt to muddy the waters on his position on abortion."

None of the other Finance Committee members discussed fetal-tissue research.

On other research issues, Dr. Sullivan expressed strong support for continuing the federal effort to prevent AIDS. "We must commit the resources and the will to find a cure. American science and our scientific community must know that we have the resolve to beat this disease."

At the same time, Dr. Sullivan said, "we must not slight our efforts to conquer cancer, heart disease, diabetes, and other disorders afflicting our citizens."

Earmarked Projects by State and Institution, 1980-89

By state

1.	Massachusetts	$94,216,000
2.	New York	82,901,333
3.	Oregon	78,150,000
4.	Florida	62,377,500
5.	Illinois	60,819,000
6.	Louisiana	56,700,000
7.	South Carolina	37,700,000
8.	West Virginia	34,423,000
9.	Alabama	34,400,000
10.	New Hampshire	30,045,000
11.	Pennsylvania	26,800,000
12.	Hawaii	25,317,500
13.	Iowa	24,838,000
14.	Mississippi	23,426,000
15.	Arizona	22,575,000
16.	California	21,740,000
17.	North Dakota	$20,259,333
18.	Oklahoma	17,515,000
19.	Washington	15,920,000
20.	District of Columbia	15,020,000
21.	Indiana	13,050,000
22.	Texas	11,700,000
23.	Nevada	11,100,000
24.	Utah	11,000,000
25.	North Carolina	9,900,000
26.	Kansas	9,321,000
27.	New Jersey	8,810,000
28.	New Mexico	6,100,000
29.	Ohio	5,700,000
30.	Kentucky	5,304,000
31.	Rhode Island	5,000,000
32.	Maryland	4,350,000
33.	Connecticut	$3,750,000
34.	Idaho	3,690,000
35.	Wisconsin	3,550,000
36.	Michigan	3,250,000
37.	Minnesota	1,800,000
38.	Vermont	1,450,000
39.	Arkansas	1,200,000
40.	Georgia	517,000
41.	Virginia	450,000
42.	Nebraska	315,000
43.	Alaska	290,000
44.	Missouri	225,000
45.	South Dakota	195,333
46.	Montana	50,000
	Total	$907,229,999

By institution

1.	Oregon Health Sciences U.	$52,400,000
2.	U. of Rochester	45,000,000
3.	West Virginia U.	34,023,000
4.	U. of Alabama	33,800,000
5.	Tufts U.	33,496,000
6.	U. of Illinois at Urbana-Champaign	32,000,000
7.	U. of Florida	31,037,500
8.	Florida State U.	30,740,000
9.	Louisiana State U.	28,950,000
10.	Boston U.	27,500,000
11.	Northwestern U.	26,319,000
12.	U. of Hawaii*	25,317,500
13.	U. of South Carolina	25,200,000
14.	Iowa State U.	20,258,000
15.	Loma Linda U.	19,500,000
16.	Rochester Inst. of Technology	15,752,000
17.	Dartmouth College	15,000,000
17.	U. of New Hampshire	15,000,000
19.	Tulane U.	14,250,000
20.	Catholic U.	14,200,000
21.	Arizona State U.	14,000,000
22.	Oregon State U.	13,950,000
23.	Northeastern U.	13,500,000
24.	Boston College	11,500,000
25.	Washington State U.	11,095,000
26.	U. of Utah	11,000,000
27.	U. of Oregon	10,800,000
28.	North Dakota State U.	10,359,333
29.	U. of North Dakota	9,900,000
30.	Indiana U.	9,800,000
30.	U. of North Carolina*	9,800,000
32.	Pennsylvania State U.	9,750,000
33.	U. of Oklahoma	8,800,000
34.	U. of Arizona	8,575,000
35.	State U. of New York*	8,500,000
36.	Xavier U. of Louisiana	8,250,000
37.	Medical U. of South Carolina	8,000,000
38.	Drexel U.	7,925,000
39.	U. of Medicine and Dentistry of New Jersey*	7,500,000
40.	Mississippi State U.	7,450,000
41.	Oklahoma State U.	6,715,000
42.	U. of Nevada at Las Vegas	6,000,000
43.	Temple U.	5,700,000
44.	Ohio State U.	5,500,000
45.	Cornell U.	5,349,333
46.	U. of Kentucky	5,304,000
47.	Brown U.	$5,000,000
47.	U. of New Mexico	5,000,000
49.	Kansas State U.	4,930,000
50.	Voorhees College	4,500,000
51.	Drake U.	4,200,000
52.	U. of Nevada*	4,100,000
53.	Loyola U. of Louisiana	4,000,000
54.	U. of Idaho	3,690,000
55.	U. of Mississippi	3,650,000
56.	U. of Wisconsin at Madison	3,550,000
57.	Baylor College of Medicine	3,300,000
58.	Purdue U.	3,250,000
59.	Brandeis U.	3,000,000
59.	Columbia U.	3,000,000
59.	Loyola U. of Maryland	3,000,000
59.	U. of Texas at El Paso	3,000,000
63.	Texas Tech U.	2,600,000
64.	U. of Bridgeport	2,500,000
64.	Southern Illinois U.*	2,500,000
66.	U. of Kansas	2,391,000
67.	Michigan State U.	2,250,000
68.	California State U. at Northridge	2,050,000
69.	East Central U.	2,000,000
69.	Mississippi Valley State U.	2,000,000
69.	Thomas Jefferson U.	2,000,000
72.	U. of Massachusetts*	1,920,000
73.	Gonzaga U.	1,875,000
74.	Massachusetts Inst. of Technology	1,800,000
74.	U. of Minnesota*	1,800,000
76.	U. of Washington	1,700,000
77.	Southeastern Massachusetts U.	1,500,000
78.	U. of Vermont	1,450,000
79.	U. of Pennsylvania	1,425,000
80.	Johns Hopkins U.	1,350,000
81.	U. of Connecticut	1,250,000
81.	Delgado College	1,250,000
81.	Seattle Community College	1,250,000
84.	U. of Arkansas*	1,200,000
85.	New Mexico State U.	1,100,000
86.	Texas A&M U.	1,050,000
87.	Eastern Michigan U.	1,000,000
87.	U. of Nevada at Reno	1,000,000
87.	Oregon Graduate Center	1,000,000
	Other (less than $1-million each)	26,083,333
	Total	$907,229,999

* Specific campus not identified.

Note: Colorado, Delaware, Maine, Tennessee, and Wyoming are not included in the state list because they did not receive any earmarked funds.

SOURCE: JAMES SAVAGE, THE OFFICE OF THE PRESIDENT, UNIVERSITY OF CALIFORNIA

College Tuition Seen Likely to Outpace Inflation for 9th Straight Year

Continued from Page A1

ue to outrun inflation in the next few years, if not longer.

"It's the nature of the business," explained D. Kent Halstead, director of Research Associates of Washington. "Colleges will raise costs because they want to improve quality. Higher education has to stay at the cutting edge, and that costs money, lots of money."

Even though costs are rising, Mr. Halstead believes that a college education will remain within reach. "The vast majority of students are not paying astronomical costs," he said, noting that about 80 per cent of all students attend public institutions, which receive large subsidies from state and local governments. This year, tuition and fees average $1,566 at public four-year institutions and $767 at public two-year colleges, according to the College Board.

Mr. Halstead added that tuition increases at public colleges would nevertheless cause some pain among students and their parents. "Customers are used to paying a very low fee for their public services, or none at all."

Learning From Demographics

Private colleges will probably raise tuition 3 to 4 percentage points beyond inflation just to pay for current academic programs and to make up for shortfalls in federal student aid, said Julianne Still Thrift, executive vice-president of the National Association of Independent Colleges and Universities. Any new programs, she said, would add even more to cost increases.

Tuition for this academic year averages $7,693 at private four-year institutions and $4,564 at private two-year colleges.

Arthur M. Hauptman, a consultant who is preparing a study on college costs for the American Council on Education and the College Board, believes demographics are one key to understanding why costs have surpassed inflation in the 1980's. It is no coincidence that tuition began to rise rapidly at the same time as the traditional college-age population began to fall, he said. To fill their classes, colleges have spent more on recruiting and on support services for non-traditional students.

Institutions have also been strapped because enrollments have grown only slightly since 1980, making it difficult to spread fixed costs over more students, he added.

The widening gap between the earnings of high-school graduates and college graduates also plays a role in tuition increases, Mr. Hauptman said. "The added rate of return adds to the demand for higher education, and that, in turn, leads to an ability to set prices higher," he said.

'Stranded and in Trouble'

While the public has appeared willing to accept tuition increases so far, David W. Breneman, president of Kalamazoo College, worries that private institutions might price themselves out of the market. "If we continue this process for another decade, we set up a marvelous situation for the public sector, which is getting qualitatively better and in many ways enhancing itself," he said. "At each point we go up in posted price by 10 per cent, we lose part of our pool." Some private colleges may find themselves "stranded and in trouble," he warned at the annual meeting of the American Council on Education.

Few countervailing pressures exist to keep public-college tuitions down, according to James R. Mingle, executive director of the State Higher Education Executive Officers association. He said that only a handful of states have effective student lobbies, that the number of state legislators who see themselves as "protectors" of low tuition has dropped, and that Education Secretary Lauro F. Cavazos has not pressed the cost issue as did his predecessor, William J. Bennett.

Asked about the tuition outlook for next fall, Mr. Cavazos issued a statement last week that expressed concern about rising tuition and called on colleges to "make every effort" to keep costs down.

He added: "As a former university president, I have firsthand experience with the tremendous challenges faced by higher-education administrators in meeting rising costs while at the same time keeping tuition within potential students' reach. Each institution must identify the best way for it to meet those challenges, depending on its own particular situation. But the bottom line must always be: What's in the best interest of the students?"

Jumps at Some Public Colleges

While public institutions typically wait to see how their budget requests fare in state legislatures before setting tuitions, early announcements indicate that undergraduates in some states will face large percentage increases this fall:

- In-state fees at the University of California will rise 9.3 per cent, to $1,697. Tuition and fees for non-residents will jump 17.9 per cent, to $7,496.
- At the 37 public senior institutions in Texas, resident tuition will rise 12.5 per cent, to $540.
- In a move that has generated protest among some students and legislators, the Oklahoma State Regents for Higher Education announced double-digit tuition increases as part of a four-year plan to raise revenue for quality improvements. At the University of Oklahoma and Oklahoma State University, resident tuition for freshmen will rise 19.7 per cent, to $1,239. Tuition for freshmen at the state's other four-year colleges will rise 19.1 per cent to $1,054, and students at the state's public two-year colleges will pay $699, a 16.5-per-cent increase.

In the Maricopa County (Ariz.) Community College District, tuition for county residents will rise just 2.2 per cent, to $705. Maricopa's vice-chancellor for business services, Dan S. Whittemore, considers that low increase "a one-time opportunity" for students. He expects future increases to be much higher, saying that tax limitations have hampered the district's ability to raise money from property taxes.

New Pricing Policy

Next fall several private universities plan to institute a new pricing policy that will feature sharply higher costs for freshmen and lower increases for returning students.

At Seton Hall University, for example, upperclassmen will pay $8,250, 10.8 per cent more than this year, while freshmen will pay $8,900, a 19.6-per-cent increase. James O. Allison, executive vice-chancellor, said the increases were needed to finance new residence halls and programs to help freshmen adjust to college, among other things. He said that even with the steep price rise, Seton Hall's charges would be similar to those of "peer" institutions with which it competes for students. Applications for the freshman class are up 20 per cent, he added.

Lower Rates at Suomi College

At George Washington University, tuition will rise 20.1 per cent for freshmen, to $11,500, and will increase 10 per cent for upperclassmen, to $10,530. The added revenue will cover a deficit in the current operating budget and pay for faculty-salary increases, library purchases, and other items, said Robert A. Chernak, vice-president for student- and academic- support services.

The following is a sampling of undergraduate tuition and required fees for 1989-90: Brown University, up 7.5 per cent to $14,790; Dartmouth College, up 8.3 per cent to $14,445; Kalamazoo College, up 9 per cent to $10,686; Lehigh University, up 8.8 per cent to $13,550; Saint Louis University, up 9 per cent to $7,720; Suffolk University, up 7.4 per cent to $7,300; Walsh College, up 11.7 per cent to $5,184; and Washington University, up 9.2 per cent to $13,736.

At least one college intends to break the back of tuition inflation by lowering costs significantly. At Suomi College, tuition will drop to $6,900 from $8,300. Robert Ubbelohde, Suomi's dean of the faculty, said the college had cut its budget by reorganizing the staff and eliminating 19 positions, mostly through attrition, and by adopting such measures as reducing printing expenditures and serving less food at faculty meetings.

Year-by-Year Increases in Tuition and Fees at 4-Year Institutions

	Public	Private
1978-79	5%	7%
1979-80	6	9
1980-81	4	10
1981-82	16	13
1982-83	20	13
1983-84	12	11
1984-85	8	9
1985-86	9	8
1986-87	6	8
1987-88	6	8
1988-89	5	9

SOURCE: COLLEGE BOARD

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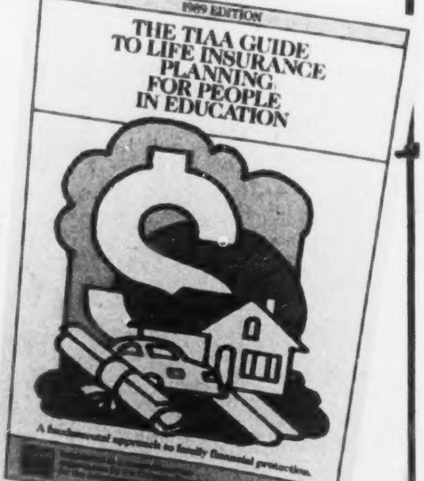
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A demographer has challenged the popular view that children in small families face disadvantages: Page A4.

A court upheld Catholic U.'s right to bar the Rev. Charles E. Curran from teaching theology: Page A13.

As more information is made available to colleges through the use of computer technology, some believe students could be swamped in a sea of information: Page A13.

A new testing program in Texas is being hailed as a great educational reform—and attacked as a barrier to the enrollment of minority students in colleges: Page A19.

Science experts and a House panel agree that the United States must better identify priorities for science spending: Page A19.

Learning-disabled students studying at College Misericordia can get a thorough education and learn self-reliance: Page A29.

In the pragmatic world of college sports, an official who once fought the N.C.A.A. now runs its programs for women: Page A31.

College boxing, a tradition many wish would disappear, is being kept alive by an instructor at Washington State U.: Page A31.

A team of scholars that has studied poverty in Southern Africa is now trying to win support to fight the problem: Page A33.

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Bernard Williams, a philosopher now in California: The atmosphere in Britain toward the humanities is "fundamentally hostile."

Philosophy Professors Are Leaving Britain for American Campuses

By DAVID WALKER

LONDON

A controversy has flared here over the loss of British philosophy professors to foreign universities, particularly in the United States.

In one of its last acts before its scheduled demise on April 1, Britain's University Grants Committee issued a report lamenting such a loss and urging corrective steps.

The committee, a government-appointed advisory body, said the international reputation of British philosophy departments was being threatened by the migration, which has caused an estimated 32-per-cent decline in the number of philosophy teachers over the past eight years.

At the University of Oxford alone, 15 of 62 philosophy posts that it had in 1981 were gone by 1988.

According to the committee's report,

Continued on Page A34

Action, Not Just Policy Change, Seen Needed to Improve Minority Scholars' Opportunities

Panel of black, Hispanic, and American Indian academics issues recommendations for governments, colleges, and faculty members

By PETER MONAGHAN

A national group of black, Hispanic, and American Indian professors and administrators last week issued a comprehensive set of policy recommendations aimed at helping state and federal governments, higher-education officials, and faculty members improve opportunities for minority scholars.

The report, entitled "Meeting the National Need for Minority Scholars and Scholarship," says the small representation of minority-group members in the nation's professoriate is a problem "of grave concern," and worsening.

Leaders of several higher-education organizations said the report was especially significant because it included plans for action drawn up by a group of faculty members and administrators with first-hand experience of the inequities that minority-group members in academe face.

"It ought to be a nudge for those institutions that recognize that the severity of the problem requires action—not just changes in policy but, more importantly, changes in action," said N. Joyce Payne, director of the Office of Advancement of Public Black Colleges and Universities. The office is part of the National Association of State Universities and Land-Grant Colleges.

Federal Efforts Criticized

The report was prepared by a panel of 34 scholars and administrators. Most were black, Hispanic, or American Indian—groups that the panel members said had been historically disenfranchised.

The panel was chaired by Myrna C. Adams, assistant vice-provost at the State University of New York at Stony Brook. Her institution sponsored a conference on minority-scholar issues in November 1987, which led to the formation of the committee.

The report is being distributed to officials at government agencies, higher-education associations, and colleges and universities.

Despite much discussion and action to date, the report suggests, "what is currently missing is a set of clear statements to guide policy development on the issue."

Among other things, the report says the federal government has been "ineffective and inefficient" in recognizing or helping to solve the problems faced by minority scholars. It also calls on all groups in higher education to encourage minority scholarship actively, and not just voice a commitment to it.

Faculty members themselves, the report says, have a special role to play, because

Continued on Page A18

Student-Loan Industry Alarmed by U.S. Stance on Default Payments

By ROBIN WILSON

WASHINGTON

The Education Department's response to financial mismanagement by a small student-loan company in California has set off shock waves throughout the student-loan industry.

At issue is the department's decision in late January to refuse to reimburse lenders for $575-million in defaulted student loans. Some student-aid experts say the reverberations could cut off the money that students borrow.

Education Department officials and some members of Congress say that those predicting that the agency's action will make banks reluctant to offer student loans are blowing the problem out of proportion.

The controversy has captured the attention of a wide range of players, including prominent lawmakers and the chief execu-

Continued on Page A22

After a Combative Campaign, Harvard and Its New Union Try Cooperation

By DEBRA E. BLUM

CAMBRIDGE, MASS.

When leaders of Harvard University's new clerical and technical workers' union were organizing last year, many here were skeptical about the group's campaign slogan: "You don't have to be anti-Harvard to be pro-union."

But as the new union and the university's administration prepared for contract negotiations that started last month, that message appeared to have been somewhat prophetic.

Despite a long and sometimes bitter unionization drive that was later contested by the university, both sides have since displayed what many campus observers describe as an unusually positive, non-combative attitude.

That was apparent at a recent party held by union members to mark the selection of a 63-member union negotiating team. The "Pipets," an *a cappella* singing group made up of union organizers and members (and named for a laboratory measuring device used by many technical-staff employees), sang songs—including their version of "Don't Worry, Be Happy," with such lyrics as: "Health insurance and family care, negotiate because fair is fair."

Members of Harvard's administration had a slogan of their own, and earlier had distributed buttons to both union members and university officials that proclaimed: "We'll make it work."

If it does work, the cooperative dialogue at Harvard could influence the way unions at other higher-education institutions negotiate with management.

Because of Harvard's prominence and the number of employees that were in-

Continued on Page A16

MacArthur Foundation Expected to Review Its Fellows Program

Officials of the MacArthur Foundation say they expect to review, and perhaps revise, the fund's highly visible "genius" program: Page A25.

MARGINALIA

Not long ago we published a letter to the editor from Timothy D. Smith, of Kent State University, and Jeffrey K. Smith, of Rutgers University, asking readers to send them "innovative excuses" used by students to explain why they "could not attend class, take an exam, turn in a paper."

Within two weeks, we're told by the Rutgers news service, the Smiths had received 60 responses. Among the excuses, as reported by the Rutgers *Daily Targum* and United Press International:

"I've just shot my husband and I have to answer a few questions from the police."

"There were too many murders in Middlesex County" (from a homicide detective).

"My son won't let me come to school" (from a woman with a mentally ill, knife-wielding son).

"My paper fell through the floorboards of my car while I was driving to class."

"I drove to the wrong state" (from a woman who was attending two different colleges in two different states and "got my days mixed up").

"He was helping me have a baby" (from a woman who wrote an excuse for her husband).

■

More from our very own pages:

"The location of the [Institute for the Humanities] is 'marvelously fitting,' says Ms. [Liz] Carpenter, a long-time political reporter who was executive assistant to Lyndon B. Johnson when he was Vice-President and press secretary to Lady Bird Johnson."

He crowded a lot into his busy days.

■

While we're eating crow, let us take on this large plateful (as reported in the Phoenix (Ariz.) *Gazette*:

"TEMPE—A national journal has infuriated Arizona State University officials by using the wrong seal to advertise ASU's search for a new president.

"The choice could not have been worse, at least to members of the university's presidential search committee. *The Chronicle of Higher Education* adorned its ad with the seal of the University of Arizona. . . .

"The rivalry between the two universities being what it is, it was no consolation that the Dec. 14 ad turned out to be a huge success.

"So far, 80 people have been identified as potential candidates to succeed ASU President J. Russell Nelson when he retires July 1. Sixteen applied for the job, 27 had their names placed into nomination, and 47 received some informal recommendation, said William Bowen, a Chicago consultant directing the search.

"All who have applied had strong academic backgrounds," he said.

May we cite that fact as we enter our plea for mercy? —C.G.

In Brief

Fire Damages Library at Western Carolina U.

A fire at Western Carolina University's Hunter Library has destroyed audio-visual equipment and left thousands of books damaged by smoke.

Fire investigators determined that the blaze had begun when a mechanism in an overhead fluorescent light fixture burst. The fire broke out in the early morning, when the building was closed to the public. No injuries were reported.

The fire began in the library's media center and burned slide projectors, video cassette recorders, films, tapes, compact disks, and other equipment.

The library's 300,000 books were not damaged by fire or water, but were exposed to heavy smoke. Each volume will be vacuumed and sponged by a special contractor.

The cost of replacing library materials and renovating the building has yet to be determined. The library is expected to be closed until cleanup and restoration are finished.

Dispute Over Flag Closes Art Exhibit

A student exhibition at the School of the Art Institute of Chicago was closed for a week after a work on display brought protests from angry war veterans.

The piece, by Scott Tyler, a senior, asks: "What Is The Proper Way to Display a U.S. Flag?" The artist spread a flag on the floor in such a way that some viewers could step on it. The veterans objected.

After meeting with veterans and Chicago police, school administrators last week reopened the exhibit and added a sign advising viewers that the city considers it illegal to step on the flag. A coalition of veterans organizations sued to prevent the reopening, but their request for an injunction was denied by a Cook County Circuit Court.

A similar dispute occurred at the institute last year, when an exhibition included a student's painting of the late Harold Washington, a former mayor of the city, in lingerie.

Animals-Rights Protesters Arrested at Berkeley

Seven animal-rights advocates ended an eight-day protest atop a 160-foot-high building crane at the University of California at Berkeley last week. They had been attempting to force the university to abandon the construction of a new animal-research laboratory.

The original six protesters and a seventh who joined them later were arrested and charged with misdemeanor trespassing. In an agreement with the university, felony charges for destruction of property will not be filed if damage to the crane does not exceed $5,000.

A university spokesman said delays caused by the protest cost the university and the contractor for the $14-million facility about $250,000.

Strike by Clerical Workers Ends at Adelphi U.

Clerical workers at Adelphi University returned to work last week, ending a five-week strike.

The workers' union, which was formed last spring and is affiliated with the Office and Professional Employees Union, represents 276 employees. They went on strike after seven months of negotiations with the university had failed to produce a contract.

Last week union members ratified a three-year contract with the university by a vote of 204 to 4, with 2 abstentions. Among other things, the contract includes a 21-per-cent salary increase for the clerical workers over three years and a decrease in their contributions to employer-sponsored medical plans.

A spokesman for Adelphi said campus operations had not been disrupted by the strike.

Student President Ousted at East Tennessee State

Student senators at East Tennessee State University have voted to remove from office the student president for allowing cabinet members to report hours on their time cards that they had not worked and for permitting an apathetic attitude.

Dorman G. Stout, the university's vice-president for student affairs, said the action was believed to be the first impeachment of a student president at the institution. The formal charges against the president, Jason Eagle, were "malfeasance and nonfeasance."

Mr. Eagle, who had served as president for about a year, was replaced by the student government's vice president, Kenneth Miller, who had lodged the charges. The Senate's vote to impeach Mr. Eagle was 16 to 3.

"It is accurate to say that the student president who was impeached had definitely accomplished things early in his tenure," Mr. Stout said. "It wasn't a completely rocky road. But the impeachment was presented as a matter of principle."

Rebel Flag Is Lowered at Alabama College

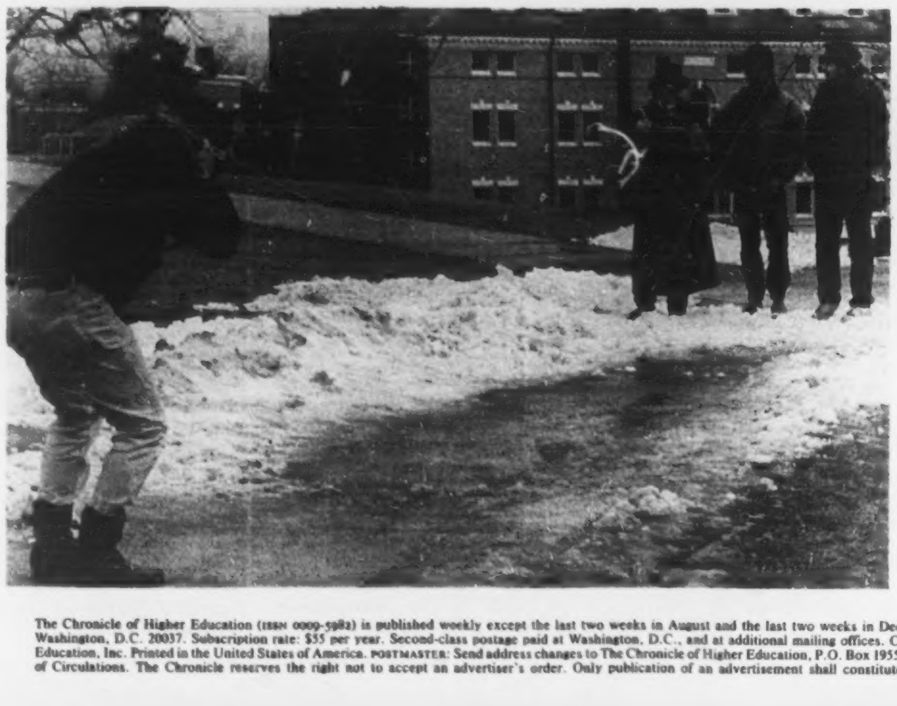
Officials of George Corley Wallace State Community College in elma, Ala., said last week that the decision to stop flying the Confederate flag on their campus had nothing to do with the recent appointment of the college's first black president.

Julius R. Brown, executive dean of the Allegheny Campus of the Community College of Allegheny County, Pa., was named

IMPROVING ON MOTHER NATURE AT SNOWLESS WILLIAMS COLLEGE

ALAN E. SOLOMON

What's a picture-postcard New England campus to do when the deadline for a once-in-five-years viewbook arrives and there's no snow? Above, a Williams College employee shovels trucked-in snow onto a walk. Then a photographer, below, snaps three students standing in it.



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Study Revises Popular View of Effects of Family Size

Continued from Preceding Page

with each advancing grade. Needed next, Ms. Blake says, are longitudinal studies that do not simply examine averages from aggregate data, but follow specific individuals over periods of time.

How much impact does birth order have on children? Other researchers have found that it does affect educational success, but Ms. Blake's work suggests that more research is needed.

She has, for example, found evidence of no consistent impact of birth order on cognitive ability and evidence that the children most likely to have trouble in school are those born in the middle of large families.

"There is clearly a story there, but it needs to be completed," Ms. Blake says.

Innovative Approaches

It is not just her findings that are innovative, but her methodology, as well.

In the 1960's, the physical deterioration of some of the major surveys done in the past prompted the formation of some data-base consortia to preserve the surveys. "In a sense, that enabled us to make the older data bases our laboratories," says Ms. Blake.

But while many other researchers have gone back to analyze older surveys, "few have undertaken studies of the magnitude that Judith has," says Jorge del Pinal, chief of ethnic statistics at the Bureau of the Census.

Ms. Blake has combed 11 major surveys of youths and adults for information on the impact of family size, examining data on some 150,000 cases in all.

The advantage of her methodology, she says, is that "you have studies done by some of the best research organizations and the best people in the country that are independent of each other, uncontaminated by a single bias."

The disadvantage is that the work is "absolute slavery," she says.

Generating New Questions

For each study they used, Ms. Blake first had to extrapolate the data they wanted on the size of families—often included only as a control—and then to verify how all of the data had originally been collected, edited, and more.

Ms. Blake hopes her work will be "useful," both in generating new questions, and in reassuring women today.

"I've seen many of my own women students opting to have a career, and often to have only one child, but then getting into incredible guilt over the possibility that they are disadvantaging that child. I hope my research will make them feel that, if what they want is one child, they can rest easy," she says.

But Ms. Blake intends to leave it to other researchers to follow up on particular policy implications of her research, on, for example, day care or family planning.

"Throughout my career," she says, "the fun has always been in generating the questions."

FACT FILE: 1987-88 Holdings of Research Libraries in U.S. and Canada

University Libraries

	Rank[1]	Volumes in library	Volumes added	Current serials	Total staff	Total expenditures[2]
Harvard U	1	11,496,906	313,922	102,000	1,049	$37,196,490
U. of California at Los Angeles	2	5,812,163	207,140	94,757	711	28,447,376
U. of California at Berkeley	3	7,190,821	195,012	98,861	740	27,524,192
Yale U	4	8,538,156	156,767	56,046	868	25,783,700
U. of Illinois at Urbana-Champaign	5	7,377,051	189,222	92,530	536	16,337,081
Stanford U	6	5,740,162	161,451	54,781	618	26,692,650
U. of Toronto	7	5,698,275	166,792	37,426	830	21,268,687
U. of Texas	7	5,888,776	141,903	79,392	586	17,582,447
Columbia U	9	5,740,832	140,135	58,516	631	21,910,292
U. of Michigan	10	6,133,171	130,358	67,530	595	20,472,160
Cornell U[3]	11	4,924,421	141,067	58,429	511	17,480,059
U. of Washington	12	4,764,341	162,688	55,080	483	15,756,741
U. of Wisconsin	13	4,804,386	100,070	50,913	504	18,161,108
U. of Chicago	14	4,970,720	111,663	54,137	349	13,953,804
U. of Minnesota	15	4,473,262	94,262	39,246	463	18,850,330
Rutgers U[3]	16	3,065,533	116,017	27,482	521	20,783,551
U. of North Carolina	17	3,520,273	121,680	42,094	412	14,704,131
Princeton U	18	4,070,827	114,716	33,836	375	15,101,885
Ohio State U	19	4,254,266	96,629	31,154	454	15,791,448
Pennsylvania State U[3]	20	2,965,695	84,004	29,324	457	16,079,625
Indiana U	21	4,011,675	103,316	26,684	467	12,608,425
Arizona State U[3]	22	2,340,657	126,586	32,792	366	12,412,356
U. of Arizona	23	3,329,146	96,117	28,777	390	12,658,105
U. of Virginia	24	3,003,066	112,535	23,908	343	13,492,869
U. of Pennsylvania	25	3,499,741	85,540	28,140	368	13,777,762
U. of Florida	26	2,701,857	105,778	29,299	403	12,953,975
U. of California at Davis	26	2,227,255	79,564	51,162	320	15,034,180
Duke U	26	3,668,935	90,060	29,484	320	12,177,792
U. of Georgia[3]	26	2,688,433	83,832	56,624	354	10,497,853
U. of British Columbia	30	2,719,586	92,451	21,655	419	13,193,111
Northwestern U	30	3,346,817	88,466	33,226	360	11,851,655
U. of Southern California	32	2,533,850	61,762	37,124	546	14,156,385
New York U	33	2,988,453	73,914	28,466	364	14,525,109
Michigan State U	34	3,301,739	116,564	29,556	331	11,516,556
U. of Alberta[3]	35	2,761,695	81,386	20,278	402	13,026,440
Johns Hopkins U	36	2,728,347	67,083	20,571	330	12,322,381
U. of Pittsburgh	37	2,713,324	87,744	20,628	342	10,592,081
McGill U	38	2,441,494	83,300	17,509	321	11,686,192
U. of Iowa	38	2,930,932	96,134	22,877	274	9,944,203
U. of Kansas	40	2,688,482	71,930	27,533	298	10,257,916
U. of California at San Diego	41	1,846,761	63,674	29,237	331	11,957,000
U. of Maryland	42	1,928,272	76,396	22,747	348	11,711,637
U. of Western Ontario	43	1,872,247	81,640	18,534	306	9,190,255
U. of Hawaii	43	2,244,118	81,131	32,980	231	7,793,828
U. of Connecticut[3]	45	2,146,993	78,955	20,871	230	9,731,105
Howard U	45	1,671,119	53,973	29,682	264	10,827,300
Massachusetts Institute of Technology	47	2,103,392	54,991	21,402	265	9,442,765
Wayne State U	47	2,233,540	59,494	23,796	266	10,395,333
U. of California at Santa Barbara	49	1,862,167	60,302	21,784	250	10,496,462
U. of Massachusetts	50	2,275,822	78,274	16,670	226	9,498,919
Georgetown U	51	1,669,036	60,872	21,607	287	10,416,426
Boston U	52	1,665,753	57,964	29,375	278	8,628,473
U. of Illinois at Chicago	52	1,563,615	67,294	18,204	295	9,418,851
Louisiana State U	54	2,327,869	64,854	22,267	283	7,961,873
Vanderbilt U	54	1,761,379	59,798	18,862	289	9,945,471
Purdue U	56	1,814,065	73,415	21,056	268	7,965,803
U. of Cincinnati	57	1,634,312	53,920	19,789	294	10,405,415
Texas A&M U	57	1,786,251	64,600	16,868	309	9,055,469
Washington U. (Mo.)	59	2,169,792	53,136	18,372	230	9,557,623
U. of Laval	59	1,653,067	58,103	14,558	269	9,690,264
Emory U	61	1,786,394	54,807	16,867	258	10,154,379
U. of South Carolina	62	2,292,721	73,748	17,782	203	6,604,478
Brown U	63	2,123,050	58,627	15,075	243	9,207,122
Syracuse U	64	2,247,176	37,305	20,994	272	$8,286,754
U. of Delaware	65	1,837,158	58,243	22,543	220	7,655,052
U. of Rochester[3]	66	2,590,720	51,153	13,684	231	8,400,031
York U. (Ontario)	67	1,697,238	55,144	18,637	238	8,450,085
U. of Missouri	68	2,410,569	47,506	17,065	235	7,421,985
Brigham Young U	68	1,926,477	65,964	18,291	325	8,371,488
U. of Tennessee	70	1,792,425	45,152	20,598	244	7,765,294
U. of Kentucky	71	2,086,428	45,738	16,688	263	7,265,372
Southern Illinois U	72	1,997,009	52,394	21,439	246	7,209,230
Temple U[3]	72	1,999,792	48,025	16,842	227	7,607,314
U. of Nebraska	74	1,939,732	54,887	20,870	210	6,424,930
U. of Notre Dame	74	1,869,717	72,403	15,559	190	6,208,325
U. of Miami	74	1,615,442	50,961	15,570	241	8,368,445
U. of California at Irvine	77	1,361,756	55,525	16,413	217	9,767,004
U. of Waterloo	78	1,578,378	71,170	14,113	205	6,650,772
Dartmouth College	79	1,722,398	60,432	20,379	184	6,556,329
Iowa State U	80	1,752,409	55,534	19,793	209	6,785,979
Virginia Polytechnic Institute and State U	81	1,632,883	45,907	18,182	220	7,853,299
U. of Utah	81	1,705,473	61,734	13,567	229	7,503,806
Florida State U[3]	81	1,718,271	54,147	18,018	237	6,996,259
U. of Colorado	84	2,185,565	46,693	14,262	211	7,771,748
Queen's U. at Kingston	85	1,712,140	40,553	15,599	215	7,879,383
Tulane U[3]	86	1,715,893	49,791	16,496	181	7,435,087
State U. of New York at Stony Brook	87	1,614,088	48,486	11,803	221	8,180,816
U. of Oregon	88	1,804,926	39,362	21,081	215	7,169,345
Washington State U	89	1,527,932	36,280	21,240	206	7,438,271
North Carolina State U	90	1,239,528	45,927	15,053	224	8,142,110
U. of Oklahoma	91	2,230,257	40,382	17,417	191	6,186,865
U. of California at Riverside	92	1,369,083	67,960	12,797	173	6,843,056
U. of Manitoba	93	1,461,076	34,071	12,138	229	7,148,292
U. of Guelph	94	1,779,183	72,945	9,595	154	4,889,616
McMaster U	95	1,297,180	43,816	10,652	195	7,421,276
U. of Houston	95	1,562,001	35,985	19,942	178	6,433,647
U. of Alabama	97	1,732,058	40,076	17,435	175	5,644,663
U. of Saskatchewan	98	1,360,380	50,674	9,689	177	6,416,000
State U. of New York at Albany[3]	99	1,225,304	38,509	16,277	170	6,326,993
Georgia Institute of Technology	100	1,576,452	44,926	19,796	112	4,473,279
Case Western Reserve U	101	1,534,807	28,715	12,279	171	6,174,479
U. of New Mexico	102	1,299,782	30,204	10,722	251	6,791,259
Colorado State U	103	1,140,108	37,736	11,797	132	6,428,057
Kent State U	104	1,659,396	27,701	7,317	183	6,768,538
Oklahoma State U[3]	105	1,483,703	28,810	10,911	185	5,692,996
Rice U	n/a	1,368,323	45,110	12,186	149	5,038,627
State U. of New York at Buffalo	n/a	2,492,502	59,329	24,110	291	10,701,947

Non-University Libraries

	Volumes in library	Volumes added	Current serials	Total staff	Total expenditures[2]
Boston Public Library	6,003,396	257,137	16,436	665	$26,319,237
Canada Institute for Scientific and Technical Information, Ottawa, Ontario[3]	2,135,500	62,000	32,400	236	19,164,198
Center for Research Libraries, Chicago	2,893,006	31,823	12,616	68	3,119,833
Library of Congress, Washington	21,214,227	266,768	174,899	4,810	254,441,000
Linda Hall Library, Kansas City, Mo.	613,290	18,460	13,120	59	3,014,391
National Agricultural Library, Beltsville, Md.	1,993,709	38,351	27,000	201	14,944,000
National Library of Canada, Ottawa, Ontario	1,192,188	61,459	21,736	521	26,092,637
National Library of Medicine, Bethesda, Md.	1,873,403	46,885	25,884	272	17,525,000
Newberry Library, Chicago	1,420,027	7,954	6,600	110	5,192,725
New York Public Library, New York	6,197,420	90,318	151,999	750	31,565,800
New York State Library, Albany, N.Y.	2,063,573	54,380	20,505	220	8,609,499
Smithsonian Institution, Washington[3]	1,052,414	30,721	16,930	119	5,152,344

SOURCE: ASSOCIATION OF RESEARCH LIBRARIES

Note: Institutions are asked to report figures for their main campuses only, unless a branch campus is indicated.

[1] Based on an index developed by the Association of Research Libraries to measure the relative size of university libraries. The index takes into account the number of volumes held, number of volumes added during the previous fiscal year, number of current serials, total expenditures, and size of staff. It does not measure a library's services, the quality of its collections, or its success in meeting the needs of users. Two institutions chose not to have their index figure calculated; they appear at the end of the list of university libraries.

[2] Figures for Canadian libraries are expressed in U.S. dollars.

[3] Includes branches as well as the main institution.

n/a Data not available.

MacArthur Fund Expected to Review Highly Publicized Fellows Program

Continued from Preceding Page

many fields or areas of work receive MacArthur Fellowships, the awards mean different things to different people, foundation officers said.

Several board members have wondered whether the fellowship is well suited to the career patterns of scientists, the officers said. Of 31 awards made in 1988, 10 went to scientists.

"In a number of cases, scientists are well supported, well equipped, and have in mind a research trail they want to follow," said Mr. Corbally. "One of the things we ask ourselves is, Will this fellowship really make a difference? With some, it's obvious. You know it will be a liberating experience. Among others, among some scientists, it's not going to make a major difference."

The goal of stimulating individual creativity through a fellowship may need some careful thought, he added, given the fact that so much of scientific research is performed in teams, and "not by the lonely researcher."

In many cases, the fellowship does exactly what the foundation would like, officers said. Kenneth Hope, director of the fellowship program, noted that the awards had had a significant impact on some scientists, pointing to examples of those who used their fellowships to develop ideas well beyond their chosen area of research. He mentioned the example of Stephen Jay Gould, a professor of zoology at Harvard University, who decided to pursue an interest in choral music after receiving his award in 1981. "In some cases, it enables them to pursue something in their interest, but not their field," Mr. Hope said.

Effects on Recipients

The foundation also would like to examine the effects of the fellowship on everyone who receives it, not just scientists, Mr. Hope said. "Without necessarily evaluating their work, we'd like to get some sense of how the fellowships affect people," he said. "We'd like to collect anecdotes and see what pattern emerges."

Other issues foundation officers are discussing revolve around those who do not receive the fellowships.

Several men and women in business have been nominated for the fellowships, but none has yet been selected. "We're competing with other mechanisms that reward people, and prominent among them is the marketplace," said Mr. Hope. "There's little case for giving it to a millionaire."

The fund is looking for other ways to reward creativity among people in business, officers said. "It places responsibility upon us to come up with something more innovative than the fellowship," said Mr. Furman.

Not surprisingly, those who have received a MacArthur Fellowship tend to think the program works fine. Richard A. Muller, a 1982 fellow, called the program a "most inspired way" of supporting scientists and artists and said he hoped that it would continue, as is.

"Every dollar received from MacArthur, unencumbered by grant requirements, was worth 10 times as much as a dollar you would get by writing a proposal," said Mr. Muller, a professor of physics at the University of California at Berkeley. He said the fellowship was an "enormous boost" to his career and gave him confidence to develop ideas outside of the mainstream.

Such ideas are something the foundation very much wants to continue supporting, Mr. Corbally said. Ways to do that may include new awards that address scientists and their special career patterns, or programs that are aimed at professionals, not just people in business, he said.

But no decisions have been made, and they won't be for some time. "We don't know what or when," Mr. Corbally said, adding that the foundation would be constantly searching for new ways to support and nurture the creative spark.

Gifts From Businesses to Education Grew Modestly in 1987

NEW YORK

Donations to education from businesses grew modestly in 1987, giving education its largest-ever share of the corporate philanthropy pie, but the increase was not big enough to keep up with inflation, a new report says.

Confirming earlier estimates, the Council for Aid to Education report says that corporate giving to education totaled $2-billion in 1987, up $50-million from the $1.95-billion reported a year earlier.

Following a decade of double-digit increases and a 4-per-cent jump in 1986, the 2.6-per-cent rise in 1987 was the smallest since 1975. Adjusted for inflation, it translates into a decline of about 1 per cent in corporate gifts to education.

Still, with donations from businesses to all causes remaining steady at $4.6-billion in 1987, the increase was enough to push education's share of all business donations to a record 43.5 per cent, up from 42.4 per cent in 1986.

The council's report, to be released in coming weeks, elaborates on estimates of corporate giving that the Conference Board, a business-research group, made late last year (*The Chronicle*, December 14, 1988). Both groups base their findings in part on a survey of companies and their giving patterns. Of the money that 325 companies that were surveyed gave to education in 1987, about 69 per cent went to colleges and universities, an average amount for recent years.

6 Pct. for Pre-College Education

Pre-college education received 6 per cent of the contributions, while the rest, about 25 per cent, went to other education programs, such as scholarships and education-related organizations.

The survey revealed no signs of a long-projected rise in support for primary and secondary schools. But according to the council's report, not all commitments to those schools are revealed in the pre-college giving category, and the survey did not include data from several companies known to have bolstered their dollar commitments to pre-college programs.

If such an increase were to be documented, it would not necessarily be reflected in a drop in support for higher education, says Jane F. Hammond, the council's director of research. "We don't have a fixed pie," she says. "Support to both sectors has increased."

While the latest report covers 1987, early indications suggest that corporate support for education in 1988 increased "only slightly" and that giving in 1989 will show a "modest" rise, the council's report says.

Further increases are unlikely to match the rapid growth seen in corporate philanthropy through the late 1970's and early 1980's, Ms. Hammond says, but may well outpace the rate of increase over the last two years. The primary reasons: a strong economic climate and a recovery in corporate profits, which soared in 1987 after a seven-year slump.

Copies of the report are available, free, from the Council for Aid to Education, 51 Madison Avenue, New York 10010. —GILBERT FUCHSBERG

Corporate Gifts to Education

	Corporate contributions to education	1-year change	As per cent of pretax net income	As per cent of all giving by corporations
1977	$665,000,000	+18.8%	0.33%	37.1%
1978	780,000,000	+17.3	0.33	37.4
1979	880,000,000	+12.8	0.34	38.4
1980	980,000,000	+11.4	0.41	41.5
1981	1,090,000,000	+11.2	0.48	43.4
1982	1,250,000,000	+14.7%	0.74%	43.0%
1983	1,525,000,000	+22.0	0.73	42.0
1984	1,700,000,000	+11.5	0.71	41.9
1985	1,875,000,000	+10.3	0.84	41.9
1986	1,950,000,000	+4.0	0.82	42.4
1987	2,000,000,000	+2.6	0.72	43.5

Allocations From 325 Corporations in 1987

	Amount	Percentage of total
Higher education		
Unrestricted operating, capital, departmental, research, and student-aid grants and grants via consortia	$290,873,000	51.7%
Matching gifts (estimate)	99,500,000	17.7
Subtotal	390,373,000	69.4
Precollege education		
Public and private school support and other	25,232,000	4.5%
Matching gifts (estimate)	8,757,000	1.5
Subtotal	33,989,000	6.0
Other educational programs		
Education-related organizations	33,778,000	6.0%
Scholarships and fellowships	39,934,000	7.1
Other	64,951,000	11.5
Subtotal	138,663,000	24.6
Total allocated	563,025,000	100.0%
Unallocated	47,121,000	
Total	$610,146,000	

SOURCE: COUNCIL FOR AID TO EDUCATION

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A new report on diet and health should give people a clear idea of what to eat to avoid cancer and other diseases: Page A4.

Several dozen historians are asking colleagues to oppose an attempt to overturn the Supreme Court decision legalizing abortion: Page A5.

The Roman Catholic Church has published an oath of fidelity for new professors of theology at Catholic colleges: Page A13.

The Education Department said it would not bail out the Bank of America, which faces millions of dollars in student-loan defaults: Page A19.

Ted Sanders, the Illinois superintendent of education, has been chosen to be U.S. Under Secretary of Education: Page A22.

Oklahoma's chancellor of higher education is credited with restoring a sense of trust in the state's public system: Page A19.

A showdown is in the works between teacher educators and the State of Texas: Page A21.

The first black has been elected to the governing council of the University of the Witwatersrand in South Africa: Page A33.

Life in Venezuela returned to normal after bloody price riots, but many of the country's universities remained closed: Page A33.

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Schools and Colleges Seen Failing to Form Close Partnerships

Most are 'little projects that do little things,' one official says

By BEVERLY T. WATKINS

ANAHEIM, CAL.

Although universities and schools agree that they must collaborate to improve teacher education and schooling, they have been unable to create the close partnerships that are necessary to bring about significant change, speakers said at a meeting here.

"It's nice and benign to think about collaboration between the universities and the schools," said John I. Goodlad, director of the Center for Educational Renewal at the University of Washington. "I happen to believe that schools of education ought to take responsibility for the educational health of the community.

"The question is whether or not we can do it. It is going to be very difficult," he told educators at the annual meeting of the American Association of Colleges for Teacher Education.

'Three Steps Forward, Two Back'

Mr. Goodlad, who began to experiment with collaborations more than two decades ago, said getting consensus among partners requires "three steps forward, two back, one step forward, three back," and then some. Often their final agreement is "as difficult to fulfill and as easy to break" as any marriage contract, he said.

Most collaborative arrangements today are "little projects that do little things—

Continued on Page A15

TARGET: PHOTOCOPIED ANTHOLOGIES

Publishers Said to Plan Lawsuit to Fight Alleged Copyright Abuses

By JUDITH AXLER TURNER

Textbook and journal publishers have been quietly collecting evidence of copyright abuse in higher education for the past year and are said to be planning to enter a lawsuit within the next month.

The lawsuit is believed to be against Kinko's, a nationwide chain of more than 400 photocopying stores, most of them near university campuses. It is not clear whether either universities or faculty members will also be named in the lawsuit. The target of the lawsuit is photocopied anthologies used by professors to supplement textbooks or to substitute for them altogether.

The publishers are said to have evidence that thousands of anthologies have been produced and sold without permission from the copyright owners. The anthologies, called "professor publishing" by the Kinko's chain and "student packets" or "course packs" by other photocopying stores, usually contain newspaper and journal articles, chapters from books, and pictures and graphs from a variety of sources.

Action in 1982 Against New York U.

Carol Risher, director of copyright and new technology at the Association of American Publishers, said last week that the association "cannot comment on the likelihood or non-likelihood of a suit."

Kurt Koenig, vice-president and copyright and trademark counsel for Kinko's Service Corporation, said last week that he had heard nothing about a lawsuit. "We are not too worried about it, because we

Continued on Page A16

Lengthening of Time to Earn a Doctorate Causes Concern

By JEAN EVANGELAUF

WASHINGTON

Graduate students are taking longer than ever to earn doctorates, according to a new report from the National Research Council.

While university administrators who have studied the issue say the reasons are complicated and vary from discipline to discipline and campus to campus, they agree the trend is troubling. The lengthening time to a doctoral degree, they say, can deter undergraduates from considering doctoral study, can demoralize those already enrolled in graduate school, and represents an inefficient use of campus resources.

Raising public awareness about the topic is vital, according to Peter D. Syverson, an

Continued on Page A13

Liberty U. Looks to Football to Help Spread the Word

Big-time football could be the ticket to building a first-class university, Liberty officials hope: Page A29.

Howard U. Protesters Win Demands on Trustee's Resignation, Other Issues

JUSTINE FRAZIER, THE WASHINGTON POST

Howard University students who occupied the administration building for three days protest the naming of Lee Atwater, Republican Party chairman, to the institution's board. See story on Page A28.

MARGINALIA

From *Tech Topics*, a weekly newsletter at Michigan Technological University:

"The Public Safety Department urges persons receiving telephone calls from anyone purporting to be a public official to demand to see a valid identification card with a photo of the cardholder."

Wave it in front of the mouthpiece and hope for the best.

■

Thought for this week (from *The Carolinian*, the student paper at the University of North Carolina at Greensboro):

"A Plato or a Jefferson come along only once every couple hundred years."

He do indeed.

■

The admissions office at Upsala College has received a high-school profile that states: "Fifty-two per cent of the student body participated in the interscholastic sports program during the 1978-88 school year."

That accounts for the acute exhaustion that's evident in the locker rooms.

■

Memorandum received by three faculty members at Gustavus Adolphus College:

"This is to request that the three of you compromise the platform party for the awarding of the Doctor of Humane Letters *honoris causa* to Richard Miller on Friday, March 17, 1989."

Anything for the old school.

■

A newsletter from Lehigh University, the *South Mountaineer*, has published a compendium of "Alumni Florida gaterhings."

Shouldn't that be gatorhings, with an *o*?

■

News item in *Adult and Continuing Education Today*:

"New plans and speeches for First Lady Barbara Bush's literacy crusade are currently in the making.

"Mrs. Bush has chosen reading and the eradication of literacy as her area of special focus."

We're well on the way to her goal.

■

From "The Future of the American College Fraternity," an article in the American Association of State Colleges and Universities' *Memo to the President*:

"I believe that it would enhance our educational environments if every college student was to become an active ember of a small organization that lives together, works together, studies together, and, yes, plays together."

An incendiary idea, if you ask *us*.

—C.G.

In Brief

7 Students Penalized in VPI Assault Case

One student has been dismissed and six put on permanent probation for abducting and assaulting a fellow student at Virginia Polytechnic Institute and State University last October.

Stephen Woodberry, a sophomore and member of the Virginia Tech Corps of Cadets, was abducted from his dormitory room in October and taken to a campus duck pond, where his head was shaved. He spent three weeks in the hospital recovering from head injuries suffered in the incident, a university spokesman said.

Thomas Goodale, vice-president for student affairs at the university, last week ordered that the seven students—who are all cadets—be punished for their part in the kidnaping. Mr. Goodale declined to punish another student and reserved judgment on a ninth, the spokesman said.

The nine students and another cadet, who has since left the university, still face charges of abduction and assault in Montgomery County, Va.

Cal. Art Exhibit Closed After Protest Over Flag

A student art exhibit with an American flag tacked to the floor was shut down at the California Institute of the Arts last week after the flag was stolen from the display and protests were lodged by veterans and others.

The exhibit was created at the art college in Valencia, near Los Angeles, in support of a similar exhibit at the School of the Art Institute in Chicago, which had been the target of earlier protests.

The California Institute of the Arts exhibit was picketed by members of an American Legion unit, whose president said some Legionnaires had vowed to steal the display's flag. Three men took the flag and turned it over to deputies from the Los Angeles County Sheriff's office, but whether they were Legion members was not determined.

No complaints were filed or expected in the case, a college official said, and Adam Greene, the student who created the exhibit, said he did not plan to reopen it.

Ruling Nets $3.5-Million for U. of Nevada

A Nevada judge has ordered a construction company to pay $3.5-million to the University of Nevada at Reno as a punishment in a civil lawsuit that did not involve the university.

Judge Jerry Whitehead of Washoe County District Court included the award to the university as part of his decision against a California company that had been sued by Reno homeowners. The homeowners charged that their houses had been damaged by a thick dust that settled on portions of the city when the company cleared land there.

Judge Whitehead ordered the company to pay $9-million in actual damages to the homeowners. He added the payment to the university to punish the company and benefit the community.

"It seems a quite sensible precedent, not simply for the university, but for other worthy causes," said Joseph N. Crowley, president of the university.

He said university officials would "kick some ideas around" about how to spend the money, but would proceed cautiously because of the chance the decision could be overturned on appeal.

No Bias Against Asians at Berkeley, Panel Finds

A faculty committee has reported it found instances of discrimination in the admission of Asian-American students at the University of California at Berkeley, but no evidence of "significant long-term bias" against them.

"We have found nothing remotely resembling a 'quota' on the admission of Asian-Americans at Berkeley," a special committee of the campus Academic

Study Finds Few Students Go Directly to College

WASHINGTON

An Education Department report says most students have abandoned the tradition of following high school with four uninterrupted years of college.

The report, "College Persistence and Degree Attainment for 1980 High School Graduates: Hazards for Transfers, Stopouts, and Part-Timers," says that fewer than 29 per cent of 1980 high-school graduates enrolled as full-time students in four-year colleges in the fall of that year.

Almost one-third of the 1980 graduates had not had any postsecondary education by 1986, the report says. It adds that 38 per cent enrolled in classes, but strayed from the traditional path by delaying college, by attending part-time, or by going to vocational or community colleges.

Study of 10,500 Students

The report says that 52.8 per cent of those who enrolled in four-year colleges right after high school obtained bachelor's degrees by 1986. Only 9 per cent of those on less-traditional paths had bachelor's degrees by 1986.

The report was based on data compiled from "High School and Beyond," a longitudinal study of more than 10,500 students who graduated from high school in 1980.

The choice of educational paths, the report says, was most likely to be affected by a student's educational aspirations and economic status.

The report is available for $4.25 from the Superintendent of Documents, Government Printing Office, Washington 20402. The stock number is 065-000-00361-9.

—THOMAS J. DeLOUGHRY

Yale's President Still Drawing Criticism for Changes at Management School

NEW HAVEN, CONN.

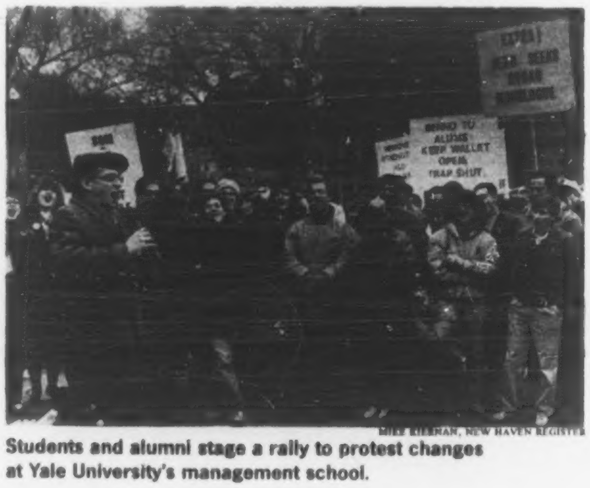
Yale University's president, Benno C. Schmidt, continues to draw criticism from faculty members, students, and alumni over structural changes he made last fall at the university's graduate School of Organizational Management.

Last week about 300 members of Yale's undergraduate faculty of arts and sciences met to consider a resolution calling for an investigation of Mr. Schmidt's changes at the management school. The resolution that faculty members finally adopted, however, called only for a committee to investigate the impact of the changes on arts-and-sciences faculty.

In October Mr. Schmidt appointed Michael E. Levine as dean of the management school, an appointment some saw as a sign that the school might be moving away from its innovative approach to educating managers. Mr. Schmidt was criticized for appointing Mr. Levine without consulting the school's search committee.

At the same time, Mr. Schmidt withdrew the authority of management-school faculty members to make and review faculty appointments. After Mr. Levine's appointment, a doctoral program in organizational behavior was discontinued and the popular organizational-behavior department was transferred to the faculty of arts and sciences.

"This has serious implications for the structure of university governance," said William N. Parker, a professor of economics. Mr. Parker introduced the motion calling for an investigation of Mr. Schmidt's handling of the management school. "If you just scrap the bylaws, there won't be any guarantees of protection of faculty members."



MIKE KIERNAN, NEW HAVEN REGISTER

Students and alumni stage a rally to protest changes at Yale University's management school.

But Howard Lamar, a professor of history who introduced the motion that was approved by the arts-and-sciences faculty members, said: "I think the faculty did express concern about what happened. It wasn't a vote of confidence or a vote of no confidence. It was an effort to resolve the problems that had arisen."

Other professors wondered whether Mr. Schmidt's decisions regarding the management school would set a precedent at the university. "Divisions within faculties are not unusual," said Sidney G. Winter, a professor of economics in the management school. "There are several departments which are comparably divided. I think the question in people's minds is whether Schmidt will be as apt to act in those situations without regard to academic governance."

At a meeting earlier this month of the Yale Corporation (the university's board of trustees), students and alumni of the management school held a rally and a "teach-in." A group of management-school alumni also bought a full-page ad in the February issue of the *Yale Alumni Magazine* to protest the changes at the school.

"We want the trustees to know that we are still concerned about this issue, and that it's not going away," said Jane Melvin, a student at the management school.

—MICHELE N-K COLLISON

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Personal & Professional

'In' Box

After some confusion as to whether the bookstore at the Pennsylvania State University's main campus would sell Salman Rushdie's controversial novel, the university says it definitely will display and sell the book.

Shortly after the furor erupted over *The Satanic Verses*, which led Iran's Ayatollah Ruhollah Khomeini to issue a death threat against Mr. Rushdie because many Muslims considered it blasphemous, a bookstore official told *The Chronicle* and other newspapers that it would not carry the novel. But John S. Bischoff, director of auxiliary services at the university, later said that decision had been made by bookstore employees without the knowledge of administrators. He said the policy had been changed after he and others learned of the decision from a local newspaper—and from irate faculty members.

■

At the University of Iowa, the Writer's Workshop and groups representing students from Islamic countries were planning a panel discussion and reading of the book. Among the organizers was Saadi A. Simawe, a doctoral student and representative of the Arab Students Association.

A native of Iraq who is not a practicing Muslim, Mr. Simawe says the public should know that not everyone from Islamic cultures supports Ayatollah Khomeini. He says the public has a right to read the book, which he sees as part of the Islamic literary tradition. Muslims who want to ban it, he says, "don't understand the humanistic heritage of Islamic literature."

■

In addition to the normal workload associated with teaching and research, female academics also tend to take on care-taking roles through committee work, counseling, and other activities, a survey by the American Studies Association has found.

An extra amount of dedication and work is expected of women, says Lois W. Banner, a history professor at the University of Southern California who worked on the survey. Other findings: Many of the 437 women surveyed said they felt they needed to be "superwomen" to balance their personal and professional lives. And because of career demands, 39 said they would not marry and 77 said they did not expect to have children.

■

A national committee that recently released a report on ways to improve opportunities for minority scholars is providing copies at no cost. "Meeting the National Need for Minority Scholars and Scholarship" is available from Myrna C. Adams, Assistant Vice-Provost for Graduate Studies, State University of New York at Stony Brook, Stony Brook, N.Y. 11794-4433; (516) 632-7040.

Vatican Publishes Oath of Fidelity to Church Teachings to Be Taken by Theology Professors at Catholic Colleges

Full implications of document remain unclear without official translation from Latin

By DEBRA E. BLUM

In a move that has left many higher-education and church officials anxious for more details, the Roman Catholic Church has published an oath of fidelity to all church teachings that must be taken by all newly appointed professors of theology or philosophical ethics at Catholic colleges and universities.

Many American higher-education and church officials, however, had not yet seen or heard of the new oath, which was published in Latin in the Vatican newspaper, *L'Osservatore Romano*, by the Vatican's Congregation for the Doctrine of the Faith. The congregation oversees the adherence to church teachings. The oath was translated into English last week in a report by the National Catholic News Service, which is affiliated with the United States Catholic Conference, an organization of bishops.

'Caught Everyone off Guard'

"This seems to be rather a confused kind of document because it has caught everyone off guard," said the Rev. Godfrey T. Mosley, vice-chancellor of the archdiocese of Washington, after reviewing a copy of the oath.

He said the Vatican not only needed to do a better job of distributing the document, but should clarify how and when the new oath should be administered.

The church teachings that require assent in the new oath and in the accompanying revised "profession of faith" include all infallible teachings of the church and many less-central teachings, such as the rejection of contraception. A "profession of faith" had in theory been required by all professors of Catholic theology before the latest revision, but not everyone made it.

Requirement Extended to Others

Although church law already requires an oath for many Catholic officials, the new requirement, which went into effect March 1, has been extended to include, among others, presidents of Catholic colleges and universities and professors at those institu-

Continued on Page A18

FACT FILE: A Profile of 1987 Recipients of Doctorates

	Arts and humanities	Business and management	Computer science	Education	Engineering	Life sciences	Mathematics	Physical sciences	Social sciences	Other professional fields[1]	All fields[2]
Doctoral degrees conferred	3,504	980	450	6,447	3,716	5,742	740	3,837	5,718	1,083	32,278
Median age at conferral	35.0	34.3	31.7	39.8	31.0	31.7	30.8	29.8	33.5	37.0	33.6
Median number of years from bachelor's degree to doctorate	12.0	11.3	9.1	16.2	8.1	8.7	7.9	7.1	10.3	13.8	10.4
Median number of years registered as a graduate student	8.4	6.8	6.6	7.9	5.8	6.5	6.3	5.9	7.2	7.7	6.9
Sex											
Male	55.1%	76.6%	85.6%	44.9%	93.5%	64.8%	83.1%	83.3%	57.2%	58.4%	64.8%
Female	44.9%	23.4%	14.4%	55.1%	6.5%	35.2%	15.9%	16.7%	42.8%	41.6%	35.2%
Citizenship											
United States	78.0%	60.4%	54.0%	84.9%	41.8%	73.5%	46.6%	65.1%	76.1%	75.4%	70.8%
Non-U.S., permanent visa	5.0%	8.4%	7.1%	2.7%	9.5%	4.5%	6.9%	4.5%	4.3%	2.7%	4.9%
Non-U.S., temporary visa	9.3%	23.3%	31.6%	6.5%	41.2%	16.0%	40.7%	24.0%	11.4%	13.2%	17.3%
Unknown	7.7%	3.0%	7.3%	6.0%	7.4%	6.1%	5.8%	6.4%	8.3%	8.7%	7.0%
Per cent with bachelor's degree in same field as doctorate	58.5%	35.5%	20.2%	37.8%	75.2%	55.6%	73.0%	72.6%	56.4%	23.6%	54.9%
Planned postdoctoral study											
Fellowship	4.1%	1.0%	1.6%	1.4%	5.4%	29.6%	8.1%	20.2%	8.5%	2.2%	10.8%
Research associateship	1.5%	1.5%	6.9%	1.4%	12.2%	17.2%	12.8%	29.0%	3.9%	1.1%	9.5%
Traineeship	0.3%	0.1%	1.3%	0.6%	1.2%	1.5%	2.2%	0.5%	1.3%	0.5%	0.9%
Other	1.5%	0.4%	1.1%	0.9%	0.5%	3.9%	0.4%	0.6%	1.2%	0.6%	1.4%
Planned postdoctoral employment											
Educational institution	65.4%	71.4%	49.3%	63.0%	25.1%	20.6%	48.4%	11.3%	35.7%	53.9%	39.8%
Industry or business	4.8%	9.6%	23.6%	6.0%	32.5%	8.4%	10.5%	22.4%	12.4%	8.1%	13.0%
Government	2.2%	2.1%	2.4%	7.9%	7.3%	6.2%	2.4%	4.8%	9.4%	7.1%	6.4%
Non-profit organization	4.4%	0.9%	1.1%	5.4%	1.0%	2.2%	1.1%	0.8%	10.8%	11.4%	4.5%
Other or unknown	4.3%	1.4%	2.4%	4.3%	2.3%	2.2%	3.0%	1.5%	5.6%	3.4%	3.4%
Postdoctoral status unknown	11.5%	11.4%	10.2%	9.0%	12.4%	8.2%	11.1%	9.0%	11.2%	11.7%	10.1%
Primary postdoctoral activity											
Research and development	7.4%	29.9%	57.4%	5.3%	64.8%	48.9%	38.9%	68.9%	23.0%	8.8%	27.8%
Teaching	73.7%	55.1%	32.1%	36.0%	21.2%	26.9%	50.6%	16.9%	27.9%	51.4%	36.9%
Administration	5.0%	4.6%	1.1%	36.5%	1.8%	6.3%	1.5%	2.5%	6.0%	13.3%	13.4%
Professional services	4.6%	3.5%	4.2%	12.5%	5.4%	8.4%	2.9%	4.7%	34.3%	16.7%	13.2%
Other	3.6%	1.7%	1.1%	1.9%	1.5%	3.5%	1.5%	2.1%	2.8%	3.2%	2.4%
Unknown	5.7%	5.2%	4.2%	7.8%	5.3%	6.0%	4.7%	5.0%	6.1%	6.5%	6.2%

[1] Excludes business and management, which is listed separately

[2] Includes degree categories not listed separately

SOURCE: SURVEY OF EARNED DOCTORATES, NATIONAL RESEARCH COUNCIL

Lengthening of Time Spent Earning a Doctorate Concerns Administrators

Years Spent in Earning a Doctorate

	1967	1977	1987
Engineering	5.2	5.6	5.8
Education	6.2	6.4	7.9
Humanities	5.5	7.1	8.4
Life sciences	5.4	5.7	6.5
Physical sciences	5.1	5.7	6.0
Professional other	5.3	6.1	7.2
All fields	5.4	6.1	6.9

SOURCE: NATIONAL RESEARCH COUNCIL

Continued from Page A1

official with the Council of Graduate Schools. "If you need new faculty, as we expect we will beginning in the next decade, then the whole issue of time to degree becomes important."

In the latest edition of its annual survey of new Ph.D. recipients, the N.R.C. said that in 1987, the most recent year for which figures are available, the typical new doctoral recipient spent a median 6.9 years in graduate school, up from 6.1 years in 1977.

Over the same period, the total median time that elapsed between the earning of a bachelor's degree and a doctorate rose to 10.4 years from 8.7 years.

In a detailed analysis of the 1987 survey, the council reported that:

- The time taken to earn a doctorate varied tremendously by discipline, ranging from a low of 5.8 years in engineering to a high of 8.4 years in the humanities.
- Over all, women were enrolled as graduate students longer than men, U.S. citizens longer than foreigners, and black and Hispanic students longer than whites. However, those differences were much smaller when the field of study was taken

Continued on Following Page

Lengthening of Time Spent Earning a Doctorate Concerns Officials

Continued from Preceding Page

into account, with one exception: Black students in each of the disciplines took a longer-than-average time to earn their degrees.

- Those who had definite postgraduate employment plans took about the same amount of time to earn their degrees as did the new degree recipients who were still job hunting.
- Students who paid for their graduate-education costs from their own earnings were enrolled longer than those who received competitively awarded fellowships or research or teaching assistantships.

Commenting on the study's findings, Maresi Nerad, a researcher at the University of California at Berkeley, said that students in disciplines in which research is conducted as an "apprenticeship" earned degrees more quickly than did those in fields in which research is a solitary endeavor. Ms. Nerad is working on a project whose goal is to help Berkeley students complete their degrees in a timely fashion.

Working Alone or in Teams

In many of the sciences, she said, students collaborate with faculty members in laboratory research, and they all have a stake in completing the work quickly. In the humanities and social sciences, however, students work alone and typically have little close contact with faculty members. Students in those disciplines view the dissertation as a book-length "masterpiece," Ms. Nerad said, while science Ph.D.'s view it as a paper that shows that one has learned to conduct research.

Other important factors in the length of time a student takes to earn a degree, she said, include the amount of financial support a student receives, the explosion of new knowledge, and job-market conditions.

Students prolong their academic careers when job prospects are slim, said Homer C. Rose, assistant dean for graduate studies at the University of Michigan. "It's really not a bad life," he says. "You're kind of poor, but you still interact with the faculty and your peers, and it's better than the prospect of being locked out of academia entirely or having a one-year appointment at Rattlesnake Junior College."

At the same time, though, more years of study can prove beneficial, Mr. Rose added. When students finish Ph.D.'s and go into the market, the folks who have taken forever—who have loads of teaching experience and a broad background in the field—may get the plum jobs."

At Michigan, he said, administrators are concerned about the issue and are conducting a pilot study of a few departments in an effort to understand students' academic progress.

Short Programs at Princeton

While many institutions are worried about the upward creep in the years of graduate study, Princeton University has held firm to its philosophy of short graduate programs, according to David N. Redman, associate dean for academic affairs at the graduate school. Doctoral programs last only four or five years, and students are closely supervised, must meet dissertation timetables, and carry light teaching loads if they teach at all. Nearly all receive full financial support. Those who do not finish their work on time may still submit a dissertation and earn a degree, but Princeton recently stiffened requirements for such candidates, Mr. Redman said.

Over all, U.S. universities awarded 32,278 doctoral degrees in 1987, up from 31,843 in 1986. About 71 per cent of the recipients were U.S. citizens. A preliminary report of the survey of 1987 recipients indicated that the number of doctoral degrees awarded to white men and black men continued to decline (*The Chronicle*, March 1).

Copies of the 76-page study, "Summary Report 1987: Doctorate Recipients From United States Universities," are available free from the Doctorate Records Project, Office of Scientific and Engineering Personnel, National Research Council, 2101 Constitution Avenue, N.W., Washington 20418.

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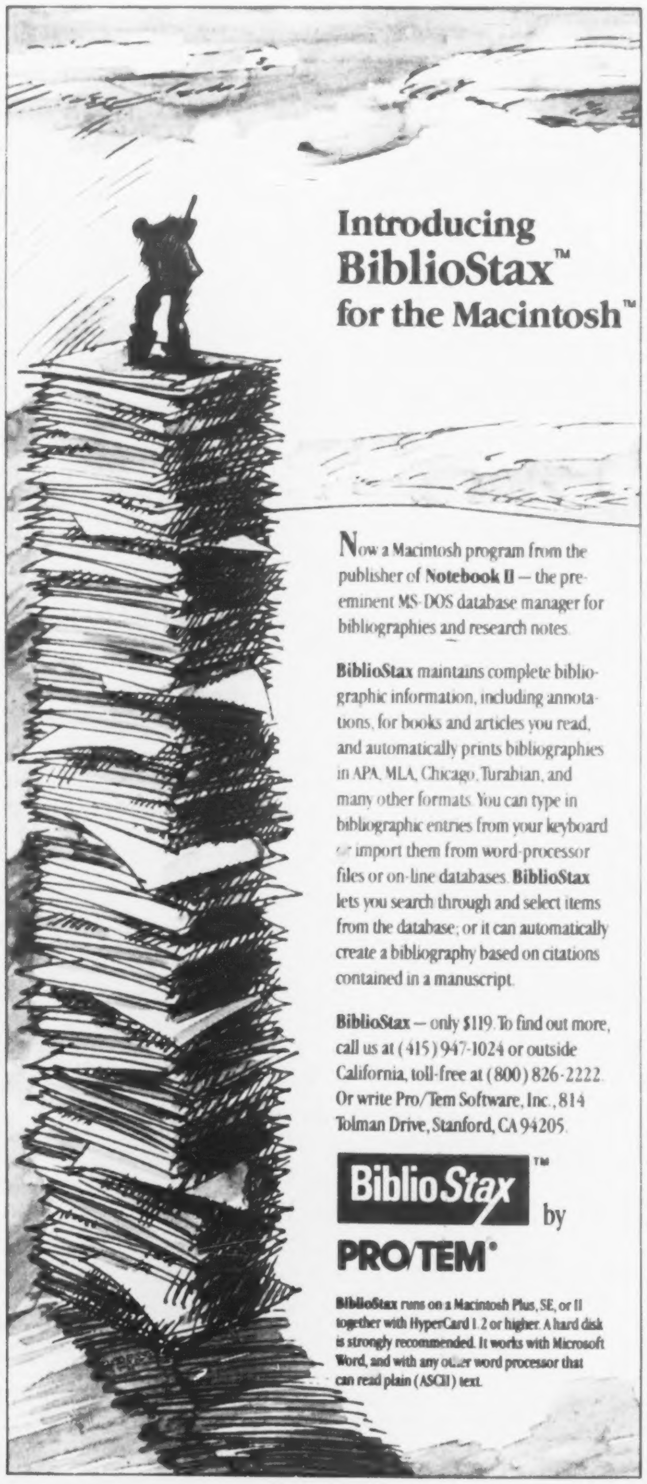

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News Summary

Articles on inside pages

Efforts to rebuild a telescope have forced a debate among scientists and two powerful Senators: Page A4.

Experiments to determine the effects of space flight on living organisms were carried into orbit aboard the space shuttle: Page A4.

The Copyright Clearance Center is considering a plan to let colleges pay an annual fee for the right to make photocopies: Page A11.

A teaching-standards board is debating what knowledge and skills schoolteachers need: Page A11.

Stricter rules on conflicts of interest for researchers have been called for by the Department of Health and Human Services: Page A17.

Bills pending in Congress would help many college employees, but could create hassles for those who balance the budgets: Page A17.

More colleges are finding real estate a profitable place to invest their endowments: Page A26.

Responding to a surge of acts of racism, some colleges are appointing administrators to encourage respect for cultural diversity: Page A32.

Congress is reconsidering a bill to require colleges to disclose the graduation rates of athletes: Page A35.

Uncertainty over how to proceed with education reform in China is seen as a reason for the delay of a high-level Party meeting: Page A37.

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Major Changes Set in Admissions Test for Medical School

Revisions stress problem-solving over rote scientific learning

By DENISE K. MAGNER

WASHINGTON

Students who hope to become physicians will soon face an all-new version of the Medical College Admission Test—one that emphasizes critical thinking, problem-solving, and communication, rather than rote learning of scientific facts.

The new MCAT will also be shorter than the current version, and it will be the first professional-school admissions exam to include a scored essay section.

The "streamlined" version of the MCAT will be introduced in 1991, the Association of American Medical Colleges announced last week. The test was last revised in 1977.

The "sweeping revisions" are intended to help medical schools identify the kind of broadly educated and independent learners that medicine needs, said Robert G. Petersdorf, president of the association.

"The changes are designed to reflect our belief that a firm, scientific base of knowledge is only one requisite for a physician," Dr. Petersdorf said.

221 Questions, Down From 309

At present the MCAT is divided into six sections—biology, chemistry, physics, science problems, reading-skills analysis, and quantitative-skills analysis. It has 309 questions and requires just over seven hours to complete.

With only 221 questions, the new MCAT will take students just under six hours to complete. It will be composed of four sections—biological sciences, physical sciences, "verbal reasoning," and a writing sample.

"It's not an easier test," said Richard L. O'Brien, dean of the Creighton University School of Medicine and chairman of the

Continued on Page A34

State Leaders Are Wary of Federal Efforts to Link Student Aid to Volunteer Service

They say proposals raise practical and philosophical questions

By GOLDIE BLUMENSTYK

The idea of linking federal student aid to volunteer service is building steam in Congress, but the concept is sputtering in state capitols.

While many state officials say they welcome programs that would encourage community service, some governors, financial-aid administrators, and directors of state volunteer programs raise philosophical and practical questions about how—or whether—such a massive program should be put into place.

Some from the volunteer field note from direct experience that it would be no simple task to train the hundreds of thousands of new volunteers or to locate meaningful work opportunities for them.

Without substantial new investments for training, "it would be a disaster. There aren't the facilities," says John A. Briscoe, director of PennServe, an office created under Gov. Robert P. Casey, a Democrat, to promote community service in Pennsylvania.

And state leaders concerned with higher education question whether the programs will detour young people from their path to college, particularly if the final plan to emerge from the half-dozen proposals now being discussed on Capitol Hill makes college financial aid contingent on service.

"It hits unevenly. If you happen to be rich, you don't worry about it," says New Jersey Gov. Thomas H. Kean, a Republican who will become president of Drew

Continued on Page A20

The sociologist who first proposed linking student aid to national service has become something of a celebrity: Page A17.

FAR FROM FORT LAUDERDALE, SPRING BREAK IS REDEFINED

LESLEY COLLINS, VANDERBILT UNIVERSITY

'Alternative' spring-break programs have sprung up on many campuses. The focus: community service. Jennifer Erdman and Russ Wharton are leading a team of Vanderbilt students painting the home of Irene Harrell (center). Story on Page A33.

Presidents' Median Salaries Found to Range From $69,700 to $115,000 This Year

By CAROLYN J. MOONEY

College and university presidents are earning median salaries that range from $69,700 at two-year institutions to $115,000 at research universities, and many also receive perquisites such as official residences, cars, and club memberships, a survey has found.

But as financial benefits have increased, so has the proportion of institutions that offer policies to give chief executives and universities alike more protection from the political winds of the college presidency.

The study, which examined compensation practices at 1,005 public and private institutions for the academic year that began last fall, was sponsored by the College and University Personnel Association, the American Council on Education, and the Association of Governing Boards of Universities and Colleges.

A comparison of data from the latest study and past studies shows that more institutions are providing formal performance reviews for their chief executives, as well as formulating policies for those who leave involuntarily. That such practices appear to be more common may partly reflect the political volatility of the president's job, in which the average tenure for those surveyed was seven years.

Besides managing budgets that at larger institutions can add up to hundreds of millions of dollars, and staffs that may include thousands of employees, college presidents are under increasing pressure to satisfy numerous constituencies, including trustees, faculty members, state lawmakers, students, alumni, and parents.

It's a tough job, say those most familiar with the demands of the college presidency. It can be especially tough for chief executives of public institutions, who traditionally have had more constituencies to

Continued on Page A14

Will Scholarly Publishing Enter the Age of the Computer?

The technology exists to create electronic alternatives to printed scholarly journals, but proponents expect a struggle for acceptance: Page A11.

MARGINALIA

When the College of Wooster advertised for an assistant men's tennis coach, the Akron *Beacon Journal* sent the invoice to (where else?) "The Fiscal Education Dept."

◆

From a letter to admissions officers from CrossRoads Publishing:

"A major reason why THE DEGREE DIRECTORY has been so well-received is the publication's commitment to editorial excellence. Our timely and informative articles on careers and education options are all geared to informing the transfer and helping he or she make an intelligent choice."

Editorial excellence isn't the half of it.

◆

Northern Star, the student newspaper at Northern Illinois University, recently ran an ad for a meeting featuring the "Nationally renounced journalist Vernon Jarrett."

Now *that's* a distinction to be proud of.

◆

The Cooper Hewitt Galleries in New York City sent some works of art to Humboldt State University in Arcata, Cal. Somehow they got there, even with this address on the invoice:

HUMBLE FAITH UNIVERSITY
ARCADA, CA

◆

Alas, the public perception (from the Tuscaloosa, Ala., *News*):

" 'This had always been a good neighborhood, it doesn't make any difference whether you make your living working—or as a college professor—it's just decent people' who live there, he said."

◆

Classified ad from an unidentified newspaper:

"HOUSEKEEPER. Lynchburg College has a full time position available immediately in the Housekeeping Department. Responsibilities include cleaning assigned areas, learning the materials, supplies, and practices used in cleaning students in public area of the college. . . ."

Think of it as something like an automatic car wash.

◆

From a story in *The Orion*, the newspaper at California State University at Chico:

"There are no dress codes for the professors at Chico State and provost Gerald Stairs said there is really no need for one. . . .

" 'Professorial dress on this campus ranges from satirical splendor to about as relaxed as you can get and stay within the boundaries of good taste,' Stairs said."

Lots of laughs, at either extreme.

—C.G.

In Brief

Jossey-Bass Sold to British Publisher for $8-Million

SAN FRANCISCO

Jossey-Bass Inc., Publishers has been acquired for $8-million in cash by Maxwell Communication Corporation, whose chairman is the British publisher Robert Maxwell.

Jossey-Bass, which was established in 1967 by Allen Jossey-Bass, specializes in the fields of higher education, business and management, public administration, and the behavioral and social sciences. The company, which is based here and has 52 employees, plans to publish 64 books, 14 quarterly series, and five audio tapes this year. Sales are expected to reach $7.5-million this year, up from $6.5-million in 1988.

Mr. Jossey-Bass, who had a large interest in the company, retired as president but will remain on the board of directors. Steven Piersanti, the former vice-president of Jossey-Bass, will serve as its president and chief executive officer.

Maxwell Communication Corporation, a major publishing company with 15,000 employees in the United States and Canada, also owns Macmillan Inc. Other holdings include the Pergamon Press and Mirror Group Newspapers.

'Long-Term Support'

In a letter to Jossey-Bass authors, Mr. Piersanti said the company's officers and shareholders approved the sale "to ensure the long-term support and vitality of our company." Mr. Jossey-Bass said the Maxwell offer was "very attractive because it promised independence and autonomy."

As part of the Maxwell organization, Jossey-Bass would "gain greater marketing capabilities" both internationally and through bookstores, Mr. Piersanti said. However, he added that the press would continue to rely primarily on direct mail to market its products.

Mr. Piersanti said that Jossey-Bass would become a separate subsidiary of the Maxwell corporation and retain its name and staff and its San Francisco headquarters.

Jossey-Bass will honor its existing publishing agreements, he said, and will not change its editorial or its business policies.

—JEAN EVANGELAUF

Adelphi U. Faculty Seeks President's Ouster

Faculty members at Adelphi University, contending that their president has created a "management crisis," have asked that he be removed.

At a meeting this month, faculty members voted 110 to 40 to urge the university's Board of Trustees to dismiss the president, Peter Diamandopoulos, and the acting provost, Igor Webb.

The vote was taken after a special Faculty Senate panel presented a report documenting widespread discontent with the university's leadership among the 324-member faculty.

Among the concerns, the report noted the turnover of approximately 70 administrative positions during Mr. Diamandopoulos's 3½-year tenure.

A university spokesman, Joseph Mancini, said the Board of Trustees unanimously supports the president, who considered the faculty committee's report biased and exaggerated.

Mr. Mancini noted that Mr. Diamandopoulos had been credited with steering Adelphi away from a financial crisis and with planning for new campus facilities.

Three times in Mr. Diamandopoulos's six years as president of Sonoma State University, faculty members there voted to censure him.

Gallaudet Protest's Target to Head U. of Idaho

Elisabeth Ann Zinser, who served 36 tumultuous hours as president of Gallaudet University last year, has been named president of the University of Idaho.

Ms. Zinser, a hearing person, has been vice-chancellor for academic affairs at the University of North Carolina at Greensboro for five years. She was the target of a week of protests by Gallaudet students, employees, and alumni last March when she was appointed to lead the university for the deaf. Protesters demanded that she resign to make way for a deaf president.

Idaho's first female president, Ms. Zinser will assume the post on July 1. She will be the 14th head of the 100-year-old university, which enrolls 9,500 students and has 2,100 full-time faculty members.

Penn State U. Establishes Racial-Incident 'Hot Line'

Pennsylvania State University has established a toll-free telephone number that parents and alumni can use to find out about the racial climate at the university.

The "hot line," established in the wake of several bias incidents at the university's main campus, is one of several methods that Penn State officials are using to dispel rumors and keep parents and others informed about what is happening on the campus, a university spokesman said. University officials have also traveled to Harrisburg, Philadelphia, and Pittsburgh in recent weeks to meet with parents.

Employees in Penn State's Campus Life Assistance Center received almost 200 calls during the first four days of hot-line service, the spokesman said.

The bias incidents, which included several allegedly violent altercations and the posting of racist posters, also attracted the attention of Pennsylvania's Attorney General Ernie Preate, Jr. He has announced that his office will assist campus and local police in investigating the incidents.

Duquesne U. Board Fires Editor of Student Paper

A Duquesne University judicial board fired the editor in chief of the campus newspaper and placed her on probation last week for violating two sections of the student-conduct code.

Rebecca Drumm, a senior student whose tenure as editor was almost over, was found guilty of maintaining an outside bank account in the name of the newspaper, the *Duquesne Duke*, that an administrator had asked her to close. She was also found guilty of holding a news conference before getting university authorization.

The board, composed of four students and one faculty member, was convened after the student-government association suspended Ms. Drumm last month.

According to her lawyer, Ms. Drumm plans to appeal the decision.

Institutions Plan to Bring Afghan Students to U.S.

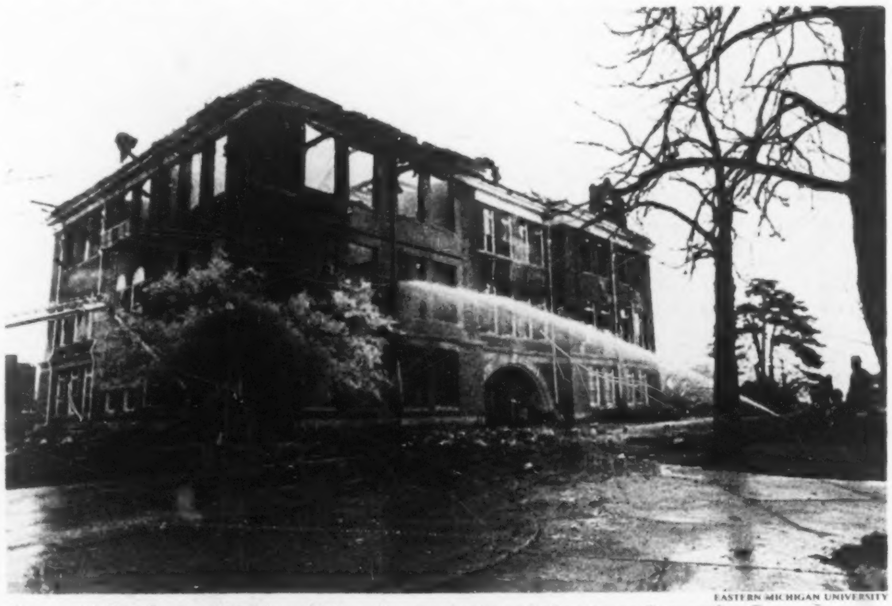
Responding to an appeal from the chancellor of the University of Nebraska at Omaha, 30 colleges and universities have agreed to give scholarships to students from Afghanistan.

Chancellor Del Weber sent letters to the heads of about 1,300 colleges and universities around the country, asking them to help Afghan students who want to study in the United States.

"Now that the Russians have withdrawn, the university feels like getting involved in the reconstruction," says Rahim A. Yasir, an official of the university's Center for Afghanistan Studies.

According to the plan, Afghan

FIRE DESTROYS HISTORIC BUILDING AT EASTERN MICHIGAN U.



EASTERN MICHIGAN UNIVERSITY

Sherzer Hall at Eastern Michigan University was destroyed after an early morning fire. No one was injured in the blaze, the cause of which was not known. The building, which housed classrooms, offices, art studios, and an observatory, will be razed.

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FACT FILE: Benefits and Compensation of College Presidents, 1988-89

Housing	
Residence provided	47.9%
Additional housing assistance:	
Maintenance	89.4%
Utilities	86.5%
Household staff	69.4%
Remodeling allowance	48.0%
Assistance where residence not provided:	
Home-purchase allowance	21.4%
Mortgage-interest subsidy	5.2%
Property-tax allowance	1.1%
Property tax paid in full	0.4%
Rental allowance	8.8%
Rent paid in full	1.3%
Relocation assistance (for those who moved)	
Household moving expenses:	
Paid in full	81.3%
Paid in part	14.4%
Travel expenses for family:	
Paid in full	44.1%
Paid in part	13.2%
Assistance to spouse	
Staff and facilities for entertaining	26.2%
Secretarial staff	8.1%
Remuneration for involvement at institution	7.1%
No provision	70.2%
Assistance finding employment for spouse	
Provided	2.6%
No provision	36.6%
Spouse employed within institution	2.2%
Not required	57.4%
Car	
Personal car provided	59.5%
Pool car:	
Assigned to chief executive	25.0%
Available as needed	5.1%
Operating expenses:	
Paid	55.1%
Allowance provided	12.5%
Option to purchase car	2.2%
Driver provided as needed	8.7%
No provision	16.6%
Business travel and entertainment expenses	
Reimbursement	80.0%
Per-diem allowance	20.4%
Unrestricted expense account	9.4%
Reimbursement for spouse's expenses	24.7%
Airline V.I.P. club	8.8%
First-class air travel	4.4%
Local entertainment expenses	
Reimbursement	66.8%
Fixed allowance	22.3%
Unrestricted expense account	9.8%
Use of campus facilities	47.3%
Use of institution staff	48.3%
No provision	14.3%
Tuition assistance for children	
Full tuition at own institution	45.0%
Full tuition at other institution	11.2%
Tuition assistance for children, continued	
50% or more at own institution	13.7%
50% or more at other institution	5.0%
Up to 50% at own institution	2.6%
Up to 50% at other institution	2.5%
Employment contracts	
Provided	75.5%
Formal written contract	54.0%
Letter of agreement	35.9%
Oral agreement	6.6%
Term of agreement specified	65.4%
Time period:	
One year	30.9%
Two years	11.8%
Three years	29.5%
Four years	10.0%
Five years	14.2%
Six years or more	2.4%
Performance review	
Formal performance review	69.7%
Frequency of review:	
End of contract term	4.4%
Annually	72.8%
Every two years	5.8%
Every three years	11.5%
Other	5.5%
Responsibility for review:	
Chairman of the board	19.9%
Committee of the board	30.6%
Entire governing board	34.2%
Special review committee	15.3%
Academic rank and tenure	
Academic rank conferred	52.0%
Hired from tenured position	33.5%
Currently tenured	30.1%
Eligible for tenure	9.3%
Assured tenure following resignation	26.4%
Leave of absence allowed for	
Government or public appointment	19.3%
Extended study or research	23.2%
Personal or medical	74.8%
Sabbatical	41.9%
Additional income from institution	
Annual bonus	3.8%
Salary supplement	10.9%
Profit sharing	0.3%
Outside compensation	
Paid corporate directorships	12.5%
Honoraria or lecture fees	9.6%
Consulting fees	6.3%
Involuntary departure	
Involuntary departure policy	24.0%
Departure pay	67.0%
Amount:	
Less than 6 months' pay	23.4%
6-12 months' pay	[illegible]
Over 12 months' pay	[illegible]
Negotiable at time of departure	26.6%

Median Salaries by Full-Time-Equivalent Enrollment and Type of Institution

Research universities	
Under 2,000 (8)	$83,000
2,000 to 4,999 (8)	115,500
5,000 to 14,999 (12)	115,000
15,000 and over (16)	119,900
Public (46)	111,000
Private, independent (7)	150,000
All (54)	115,000
Other doctorate-granting universities	
Under 2,000 (10)	$79,600
2,000 to 4,999 (5)	85,300
5,000 and over (24)	105,300
Public (25)	99,200
Private, independent (10)	85,000
Private, church-related (4)	137,500
All (39)	99,200
Comprehensive universities	
Under 500 (2)	$39,700
500 to 999 (4)	80,000
1,000 to 1,999 (9)	95,000
2,000 to 2,999 (16)	78,900
3,000 to 3,999 (24)	90,000
4,000 to 4,999 (18)	96,000
5,000 to 7,499 (33)	87,500
7,500 to 9,999 (23)	90,000
10,000 to 14,999 (21)	104,000
15,000 and over (19)	107,000
Public (112)	90,000
Private, independent (34)	113,100
Private, church-related (23)	90,000
All (169)	90,900
Baccalaureate colleges	
Under 500 (46)	$49,800
500 to 999 (99)	56,000
Baccalaureate colleges, continued	
1,000 to 1,999 (113)	$80,000
2,000 to 2,999 (33)	92,000
3,000 to 3,999 (16)	76,500
4,000 to 4,999 (7)	82,500
5,000 to 7,499 (8)	87,900
7,500 and over (4)	89,200
Public (62)	75,300
Private, independent (123)	79,500
Private, church-related (141)	66,800
All (326)	74,000
Specialized institutions	
Under 500 (42)	$60,000
500 to 999 (14)	97,400
1,000 to 1,999 (12)	109,000
2,000 and over (9)	107,100
Public (17)	100,000
Private, independent (34)	75,900
Private, church-related (26)	55,500
All (77)	72,000
Two-year colleges	
Under 500 (31)	$48,000
500 to 999 (52)	62,600
1,000 to 1,999 (81)	67,200
2,000 to 2,999 (42)	67,800
3,000 to 3,999 (25)	75,200
4,000 to 4,999 (21)	74,200
5,000 to 7,499 (31)	82,000
7,500 to 9,999 (12)	82,400
10,000 to 14,999 (17)	90,000
15,000 and over (14)	94,500
Public (292)	70,000
Private, independent (24)	59,000
Private, church-related (10)	36,100
All (326)	69,700

Note: The survey covered 1,005 institutions. The sample size for each category is shown in parentheses.

SOURCES: AMERICAN COUNCIL ON EDUCATION
ASSOCIATION OF GOVERNING BOARDS OF UNIVERSITIES AND COLLEGES
COLLEGE AND UNIVERSITY PERSONNEL ASSOCIATION

Presidents' Median Salaries Found to Range From $69,700 to $115,000

Continued from Page A1

please than their counterparts at private institutions.

At the same time, presidents of public institutions—who on average earned less than those at private institutions—face more public scrutiny of their compensation packages (*The Chronicle*, May 13, 1987). That leaves governing-board members with the challenge of adequately compensating chief executives of public institutions—most of whom are recruited on a national level—while satisfying public demands for accountability.

"I think certainly the presidents of colleges and universities in today's environment do have tough jobs," said Richard C. Creal, executive director of the personnel association. "Probably the length of service is reflective of the difficulties of the position."

Madeleine F. Green, director of the Center for Leadership Development at the American Council on Education, suggested that college presidents are getting smarter about negotiating contracts, since spelling out job conditions in advance can help both the institution and the chief executive. "Given the fragility of their job, it's good sense," she said.

The survey and an accompanying summary, "1988 Compensation, Benefits, and Conditions of Employment for College and University Chief Executive Officers," has been conducted every two years since 1984. Unlike the annual survey of administrators' salaries that is conducted by the personnel association (*The Chronicle*, February 15), the latest survey focused only on chief executive officers in higher education. The study was based on information collected last fall.

Following is a summary of the benefits and employment conditions at participating institutions:

SALARIES

Salaries were broken down by type of institution, by budget size, by enrollment, and by control. At some types of private institution, salaries were significantly higher than those at public institutions. The median salary at private research universities, for example, was $150,000, compared with $111,000 at public research universities.

Salaries also varied by sector: The median salary at public and private baccalaureate colleges was $74,000, while that at all comprehensive universities was $90,900.

About 3 per cent of the presidents received a portion of their annual salary from supplements that averaged $24,338. Most were provided through private foundation money. Some 10.9 per cent received salary supplements over and above their annual salaries; those payments averaged $10,009.

In addition, 3.8 per cent of the presidents received annual salary bonuses averaging $7,114, while 12.5 per cent received compensation from paid corporate directorships, 9.6 per cent from lecture fees, and 6.3 per cent from consulting fees.

About 32 per cent of presidents had a portion of their salary deferred.

HOUSING

Nearly half the institutions provided their chief executive officer with an official residence, and most required him or her to live there. Two-year colleges were the least likely to provide official residences.

A majority of institutions providing official residences also provided maintenance services, household-staff services, and utilities. Nearly half provided money for remodeling.

AUTOMOBILES

A majority of institutions made some provision for car use. Some 59.5 per cent provided a car, and 8.7 per cent provided a driver when needed.

TUITION BENEFITS

Most institutions had a policy that provided tuition assistance to children and spouses. Children were eligible for full tuition at the president's institution at 45 per cent of the responding campuses.

INVOLUNTARY-DEPARTURE POLICIES

Some 24 per cent of institutions offered such policies, compared with 18 per cent in 1986. Of those that had such policies, about two-thirds provided for separation pay. The proportion of institutions offering job-placement assistance for departing chief executives also increased, to 12.9 per cent from 3 per cent in 1984.

EMPLOYMENT CONDITIONS AND JOB EVALUATIONS

Presidents had contractual agreements for their jobs at about three-fourths of responding institutions. Of those, 54 per cent had formal written contracts, and 35.9 per cent had letters of agreement.

The proportion of institutions that provide formal performance evaluations rose, to 69.7 per cent in 1988 from 55 per cent in 1984. Most job evaluations were conducted annually.

Robert L. Gale, president of the governing-board association, said his organization had encouraged governing boards to adopt contractual agreements for presidents. "There's more of a movement toward professionalizing the process of dealing with a president's life as a president," he said.

ASSISTANCE FOR SPOUSES

More than 70 per cent of responding institutions provided no special assistance to spouses. Spouses received compensation for performing institutional duties at 7.1 per cent of the responding institutions, and secretarial help at 8.1 per cent.

ENTERTAINMENT EXPENSES

A majority of institutions—66.8 per cent—reimbursed presidents for out-of-pocket expenses associated with official entertaining. Some 9.8 per cent provided unrestricted expense accounts, and 22.3 per cent provided a fixed allowance for business entertainment.

CLUB MEMBERSHIPS

One-fifth of the responding institutions provided country-club memberships for presidents, and 23.2 per cent provided luncheon-club membership. Club memberships are typically intended to provide a setting for official entertaining or other business.

Although college presidents' salaries and compensation are still thought to lag well behind those of their counterparts in private industry, they have led to controversies

and even resignations at some institutions. Some public-college presidents, for instance, earn more than the governors of their states.

Renovations or improvements of official residences have been especially controversial, and some presidents have had to learn the hard way that there can be a vast difference of opinion about which expenses serve a public need and which serve a private need.

Last year, Kenneth H. Keller, president of the University of Minnesota, resigned amid controversy over a $1.7-million renovation of his campus office and official residence. He later apologized for what he said was poor judgment.

Another chief executive who has been the subject of much scrutiny recently is Lattie Coor, president of the University of Vermont. Mr. Coor, who has been in his job for 13 years, earns $144,450. Like many other presidents of large public universities, he is required to live in a university-owned residence and is provided with a car (an Audi) and household services.

A 'Princely Retainer'

In a letter sent to faculty members last month, the chairman of the university's Board of Trustees maintained that the president's benefits "represent a level of compensation the board deems appropriate for a chief executive officer with 13 years of service to a university of the stature of UVM."

However, some faculty members who are trying to organize a union at the university think Mr. Coor's salary and compensation package is out of line with what the university can afford, and they have made what they call the president's "princely retainer" a major rallying point. Willard M. Miller, a union organizer who has been an assistant professor of philosophy at the university for the last 20 years, has argued that Mr. Coor's salary and compensation package rank at the high end for presidents of state institutions, while faculty salaries do not.

Nicola C. Marro, a university spokesman, said the latest uproar was a unionizing tactic that could detract from the university's efforts to bolster higher-education spending by the state. "It's a malicious misuse of inaccurate information," he said.

The new report, "1988 Compensation, Benefits, and Conditions of Employment for College and University Chief Executive Officers," costs $95 for participating institutions, $195 for non-participating institutions, and $250 for all other organizations. It is available from the College and University Personnel Association, 1233 20th Street, N.W., Suite 503, Washington 20036; (202) 429-0311.

New Books on Higher Education

It may be necessary to add state tax to the cost of books listed below. Discounts may be available to scholars and to people who order in bulk.

Institutional Effectiveness and Outcomes Assessment Implementation on Campus: A Practitioner's Handbook, by James O. Nichols and others (Agathon Press, 111 Eighth Avenue, New York 10011; 154 pages; $21). A guide for administrators.

Liberation Learning: Self-Directed Learning for Students, by Tom Carney (Para-Publishing Enterprises, 1160 Grand Marais Road West, Windsor, Ontario N9E 1C7; 200 pages; $12.95 U.S., plus $3 for shipping). Discusses course selection, study skills, time management, and other topics.

Management Reporting and Accounting for Colleges (National Association of College and University Business Officers, P.O. Box 91600, Washington 20090; 88 pages; $30 prepaid for NACUBO members, $50 for nonmembers). A planning manual for college and university administrators.

Survey Finds Regional Differences in Salaries of Academic Administrators

FAYETTEVILLE, ARK.

Salaries of higher-education administrators can vary significantly depending on geographical location, a survey of 147 state institutions and 34 university systems has found.

Academic vice-presidents in the Rocky Mountain and Great Plains states, for example, earned an average of $76,686 in 1988, while their counterparts in the Mid-Atlantic region earned an average of $99,875, according to the survey by the University of Arkansas's Office of Institutional Research.

The survey, "Twenty-Second Annual Rank-Order Distribution of Administrative Salaries Paid 1988-89," covers administrative salaries at public, doctoral-degree–granting institutions only. To allow participating institutions to make certain comparisons, it provides a breakdown of administrative salaries by geographic region and by job category.

Comparisons With Peers

Participating universities are listed but not identified along with specific salary information.

The research office does not provide an analysis of the survey data or breakdowns by budget or enrollment, which are available in an annual administrative-salary survey conducted by the College and University Personnel Association. The survey does, however, allow institutions to see how their salaries compare regionally, said Eugene F. Buckley, director of the research office.

"Doctoral-granting institutions really perceive themselves as being in a national market, but they are also interested in how peer institutions in their geographic area are doing," he said.

Highest Salary: $157,750

Other survey findings:

- Among presidents of all single-campus institutions that responded, the highest salary reported was $157,750; the lowest was $59,160. Among presidents of university systems, the highest salary was $140,000; the lowest was $73,000.
- Salaries for academic vice-presidents ranged from $60,000 to $135,000.
- Salaries for affirmative-action directors who were listed as academic officers ranged from $22,500 to $89,657.

All institutions that participated in the survey will receive a complimentary copy. Additional copies are available for $10 each from the Office of Institutional Research, 318 Administration Building, University of Arkansas, Fayetteville, Ark. 72701; (501) 575-5252.

—CAROLYN J. MOONEY

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News Summary

Articles on inside pages

College trustees must take a far more active role in overseeing staff-retirement plans, says the head of TIAA-CREF: Page A13.

A survey has revealed what some college officials describe as a surprisingly high turnover rate among administrators in 32 job categories: Page A13.

Suggestions by federal auditors on ways to cut research costs have angered college officials: Page A20.

The Defense and Energy Departments have given Congress a list of technologies they consider essential for developing weapons: Page A20.

Education officials in California are concerned that the state's bleak fiscal condition threatens the quality of higher education there: Page A21.

The Knight Foundation has decided to share its wealth with independent liberal-arts colleges: Page A27.

Business students are not convinced ethical behavior is something that can be taught, but want their institutions to address the issue in a more structured way: Page A31.

Criminal charges against players at the U. of Oklahoma has sparked debate about separate dormitories for athletes: Page A33.

Russian academics say the year-old campaign for education reform is producing uneven results: Page A35.

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Court Will Not Hear Case Accusing UCLA of Copying Software

Ruling a blow to copyright holders; victory seen for public universities

By THOMAS J. DeLOUGHRY

WASHINGTON

Agreeing with a lower court that state universities cannot be sued for violating the copyright law, the Supreme Court last week declined to hear an appeal from a software publisher that had sued the University of California at Los Angeles.

The court's decision, in *BV Engineering v. University of California, Los Angeles*, was seen as a setback for copyright holders and as a victory for public universities and states-rights advocates. Any celebration could be short-lived, however, since Congress is already debating legislation that would pave the way for copyright suits against states and state institutions.

In deciding not to hear the case, the Supreme Court supported a lower court's ruling that the 11th Amendment protected state institutions from being sued under federal laws, such as the Copyright Act of 1976.

In the lawsuit, BV Engineering, a California software company, charged U.C.L.A. with violating its copyright by making unauthorized copies of seven of its computer programs and accompanying user manuals. The company sought $70,000 in damages.

Consistent With Decision Last Month

In 1986, a U. S. District Court judge cited the 11th Amendment in granting summary judgment for the university. The U.S. Court of Appeals for the Ninth Circuit upheld that ruling in October, and last week the Supreme Court found no reason to reconsider the case.

The high Court's action was consistent

Continued on Page A18

Explaining a Star That Appears to Defy the Laws of Physics

Astrophysicists at Columbia University say that a star that seems to be spinning too rapidly may be vibrating like a ringing bell: Page A4.

Appeals Court Rules Journals May Maintain Reviewers' Anonymity

WASHINGTON

A federal appeals court has reaffirmed the right of scholarly journals to maintain the anonymity of reviewers who evaluate manuscripts for publication.

A three-judge panel of the U.S. Court of Appeals for the Federal Circuit upheld a decision by a federal district court that denied an attempt to force the American Physical Society to disclose the name of a reviewer for one of the society's scholarly journals.

In reaffirming the federal district court's ruling in *Arco Solar Inc.* v. *APS* (Case No. 88-1542), the appeals court agreed with the society that keeping the identities of its journal referees confidential was essential to preserving the integrity of the process of reviewing manuscripts for publication.

Richard A. Meserve, a lawyer for the Washington firm of Covington and Burling who represented the American Physical Society, said the appeals court's ruling es-

Continued on Page A6

Education Dept. Says 3 States Now Comply With Rights Laws

Ruling ends decades of supervision; civil-rights leaders are dismayed

By SCOTT JASCHIK

WASHINGTON

The Education Department has declared that the public higher-education systems of Georgia, Missouri, and Oklahoma are in compliance with federal civil-rights laws, ending nearly two decades of court battles and federal supervision of those systems.

The department's decision followed a statement in February 1988 that the three states needed only to complete certain steps in desegregation plans to end federal monitoring of their colleges and universities. In letters to the governors of the states, Education Department officials said they had in fact taken those steps before the deadline, which was the beginning of this year.

College officials praised the decision last week, while vowing to continue improving efforts to educate minority students. "I don't think there is going to be any lowering of intensity on the part of universities, whether the Education Department is looking over their shoulders or not," said Tom L. Duncan, education adviser to Missouri Gov. John Ashcroft, a Republican.

'Removes the Credibility' of Process

Civil-rights leaders, on the other hand, said the Education Department was allowing the states to neglect their obligations. Elliott C. Lichtman, a lawyer for the NAACP Legal Defense and Educational Fund, said: "This removes completely the credibility of the government's enforcement process."

Georgia, Missouri, and Oklahoma are among 18 states that the department's Office for Civil Rights found over the last 20

Continued on Page A22

Some Fields Are Reassessing the Value of the Traditional Doctoral Dissertation

By PETER MONAGHAN

As doctoral candidates take longer to earn their degrees, and as more and more of them drop out along the way, some higher-education officials are calling for a re-examination of the dissertation requirement.

A small but growing number of graduate-school officials are now saying that doctorates in some fields should be awarded on the basis of published journal articles, rather than on one massive work on a single topic.

'The Major Stumbling Block'

Some faculty members and university presidents have voiced concern that the dissertation has become "the major stumbling block to the Ph.D.," says Russell G. Hamilton, dean of the graduate school at Vanderbilt University. About 70 per cent of "A.B.D.'s"—candidates who complete all of the requirements for their doctorate but the dissertation—never escape those ranks, he says.

The issue will get more and more attention in coming months as a committee now being formed by the Council of Graduate Schools and headed by Mr. Hamilton examines emerging alternatives to the dissertation.

The council's president, Jules B. LaPidus, says the panel will be made up of five graduate-school deans from major research universities and will represent a variety of disciplines. The group will present its preliminary findings at the council's annual meeting in December.

Talk of the demise of the single-author dissertation and the relative merits of journal articles as a format for doctoral work are still likely to produce grumbling in meetings of academic disciplines. But graduate-school officials say that changes in disciplines, particularly in the sciences, are forcing reconsideration of the traditional dissertation.

Some Alternatives Permitted

Many observers say the dissertation as it has been known is simply foreign to the way research in "big science" is now conducted. Individual departments at many universities already permit an alternative to the traditional dissertation. The practice is well-enough established to have its own

Continued on Page A16

Chain of Photocopying Stores Responds to Lawsuit Threat

Kinko's, a chain of 400 photocopying stores, hopes to head off a copyright-abuse suit said to be planned by a group of publishers: Page A13.

MARGINALIA

Barry Glassner, of the University of Connecticut, and John Western, of Syracuse University, have asked us a challenging question: "If university departments were to start radio stations, what would their call letters be?"

Your ideas are welcome. For starters, our correspondents suggest:

For the honors program: WIXI
For the campus police: WSOS
For the counseling service: WURU
For leisure studies: WRNR
For philosophy: WYMI
For sociology: WYRU
For religion: WYYY
For astronomy: WUFO
For business: WIOU

■

Title of an editorial in *The Spectrum*, the newspaper at the State University of New York at Buffalo:

A PROPOSTION FOR EDUACTION

Editor: D'you mind if we offer a propostion to *you?*

■

To all those who have chided us for this sentence in *The Chronicle* . . .

"One evening a car lost its brakes and careered down one of the many hills on campus.":

Be advised that "careered" means (in the words of the *American Heritage Dictionary*) "to move or run at full speed, go headlong; rush."

And to those who think "careen" is the proper word, we offer this usage note from the same source: "Both *careen* and *career* may refer to rapid and uncontrolled movement, the similarity in their form having promoted their use as synonyms. Many people try to maintain a distinction in meaning between the words, restricting *career* to forward movement, and *careen* to leaning and tilting, as in nautical usage. . . ."

We're with *them*.

■

Our "Bulletin Board" gremlins are at it, again.

From a notice announcing an opening in the presidency at Lakeland College: "The college is financially stable having produced balanced operating budgets for 16 consecutive years and completing a $400,000,000 capital campaign."

But another notice, for the Benton Foundation, was a lot stingier: "Executive Director for private foundation ($11.5 assets, 3.5 staff)."

■

Picture caption in the Franklin (Me.) *Journal*:

"APPRECIATION–Louise Nicholas, center, is pictured in the photo receiving a 12 year pin and certificate from the Literacy Volunteeefs Affiliate of Franklin Country. At the left is Claude Vachon, director of Adult Basic Education with which Mrs. Nicholas has worked for."

Any openings for a caption writer, Mr. Vachon? —C.G.

In Brief

3 Killed, Hundreds Jailed at Spring-Break Sites

At least three people died this month in accidents related to spring break, according to police reports, and thousands of students have been arrested for violations of liquor laws, disorderly conduct, indecent exposure, and theft.

In Palm Springs, Cal., a 22-year-old woman was killed when the pickup truck in which she and her friends were riding overturned. Police said the woman was there for spring-break festivities, but it was unclear whether she was a student. More than 760 students had been arrested there as of late last week.

Two young men vacationing on South Padre Island, Tex., also were killed when their car overturned. Police were unsure whether the two were students. More than 300 others were arrested there.

A University of Texas student who had been vacationing on the island was reported missing after visiting a bar in a Mexican border town. Police suspect foul play.

Police in Daytona Beach, Fla., reported that about 700 students had been arrested. The city attracted some 500,000 vacationing students.

What They're Reading on College Campuses

		Previous Survey
1.	The Bonfire of the Vanities, by Tom Wolfe	1
2.	Lonesome Dove, by Larry McMurtry	—
3.	Chaos, by James Gleick	6
4.	Trump: the Art of the Deal, by Donald J. Trump with Tony Schwartz	2
5.	The Satanic Verses, by Salman Rushdie	—
6.	Beloved, by Toni Morrison	9
7.	The Shell Seekers, by Rosamunde Pilcher	10
8.	All I Really Need to Know I Learned in Kindergarten, by Robert Fulghum	4
9.	The Accidental Tourist, by Anne Tyler	5
10.	The Essential Calvin and Hobbes, by Bill Watterson	3

The Chronicle's list of best-selling books was compiled from information supplied by stores serving the following campuses: Baylor U., Bucknell U., Carleton College, Carnegie Mellon U., Case Western Reserve U., Central Michigan U., Denison U., Idaho State U., Indiana U., Kent State U., Lawrence U., Lehigh U., Mankato State U., Montana State U., Pennsylvania State U., Portland State U., Princeton U., Stanford U., Tarrant County Junior College, Tulane U., U. of Alaska at Anchorage, U. of California at San Diego, U. of Hawaii, U. of Illinois at Urbana-Champaign, U. of Iowa, U. of Maryland–Baltimore County, U. of Missouri at Columbia, U. of Nebraska at Lincoln, U. of New Orleans, U. of Notre Dame, U. of Pittsburgh, U. of Puget Sound, U. of Virginia, U. of Washington, U. of Wisconsin at Madison, U. of Wisconsin at Milwaukee, and Xavier U. (Ohio).

Reports covered sales of hardcover and paperback trade books in February.

U. of Wisconsin Fined in Infectious Waste Case

The University of Wisconsin at Madison has been fined $2,000 by Dane County after bags of infectious wastes and boxes of discarded needles from the university's hospital were found in a local landfill.

The university was cited for improperly dumping infectious hospital wastes, which are supposed to be sent to a local incinerator. An internal investigation determined that the dumping was an accident resulting from human error, said J. Jay Noren, vice-chancellor for health sciences.

Since the incident, the university has again briefed hospital staff workers on waste-handling procedures and has put up new signs.

County officials said infectious wastes had been improperly brought to the landfill from the hospital on at least one other occasion. But Mr. Noren said neither the university nor the county had found evidence of other such dumping incidents.

2-College Institution Closing in Massachusetts

The Central New England Colleges—a Massachusetts institution comprising Worcester Junior College and the Central New England College of Technology—will close at the end of the spring semester.

According to Lowell C. Smith, president of Nichols College and chancellor of the colleges, efforts to save the institution by selling a new building on its nearby Westboro campus had collapsed.

Nichols College took over management of the debt-burdened institution in September. Mr. Smith said the money owed was "in excess of $14-million."

The institution has about 1,800 students, most of whom are enrolled part time, and a full-time faculty of 25. Mr. Smith said Nichols College, a four-year institution with 800 students, would not be affected by the closing.

Surgeon General Koop Wins Jefferson Medal

C. Everett Koop, Surgeon General of the United States, has been named winner of the 1988 Jefferson Medal by the Council for Advancement and Support of Education.

The award, first presented in 1981, is given to a college graduate who has made extraordinary contributions to society.

Past recipients of the medal include John W. Gardner, former president of the Carnegie Corporation of New York, and the Rev. Theodore M. Hesburgh, president emeritus of the University of Notre Dame.

President Suspended for Falsifying Credentials

The president of Pima Community College has been suspended because board members found he did not hold the master's degree his résumé and college records said he did.

Diego A. Navarrette, who has been president of the college for a year and held various positions there for two decades, said after the disclosure of the discrepancy that he had made a mistake in not correcting it sooner.

He said he had indicated on his original application for employment at the college in 1969 that he was working on earning a master's degree in secondary education at the University of Arizona. He said that since that time he had allowed résumés to be printed and college catalogues to be published that said he held the degree.

Mr. Navarrette, who holds only a bachelor's degree in education from Arizona, will continue to receive his $80,250-a-year salary until the matter is settled.

Brenda Marshall Beckman, executive dean of the college's East Campus, has been named acting president.

Part-Timers Win Right to Have a Union

In the midst of an ongoing battle over the rights of full-time faculty members and librarians at the

Students' Lawsuit Against Dartmouth Dismissed

HANOVER, N.H.

A federal judge last week dismissed a racial-discrimination lawsuit filed against Dartmouth College by three students who are staff members of the Dartmouth *Review*, a conservative weekly newspaper.

Last March the three white students were suspended by the college after a confrontation with a black music professor. A campus disciplinary committee found the students—Christopher Baldwin, John Sutter, and John Quilhot—guilty of harassment, violation of the right to privacy, and disorderly conduct.

In the federal lawsuit, the *Review* and the three students alleged that the college had discriminated against them in the disciplinary proceedings on the basis of race and violated their civil rights.

Calling the students' allegations "hollow," Chief Judge Shane Devine of the U.S. District Court in New Hampshire ruled that they had failed to meet the minimum standards for claiming the suspensions were racially motivated.

"We are feeling fairly elated about being vindicated on a bogus claim of race discrimination," said Sean M. Gorman, the college's associate counsel.

"This was a public-relations stunt dressed up as a lawsuit," he said.

Plaintiffs Consider Appeal

Arthur H. Ruegger, one of the lawyers representing the *Review* and the students, said the plaintiffs were considering an appeal.

"We presented what I thought was ample evidence that the college viewed the students' actions in racial terms, and those racial terms only came from the race of the students and the race of the professor," Mr. Ruegger said. "Our general reaction to the dismissal is that we always felt the First Amendment claims and the procedural matters at issue in the state court case are more important."

A second lawsuit filed by the students and the *Review* is pending in a state court. In that case, the students are not alleging racial discrimination, but charge the college with breach of contract for not following disciplinary proceedings that it was obligated to heed. While the students call it a First Amendment case, Mr. Gorman said it was a contractual matter.

In January, state Superior Court Judge Bruce Mohl issued a temporary injunction ordering the college to re-admit Mr. Baldwin and Mr. Sutter, whose suspensions would not have ended until the fall of 1989, pending the outcome of the state case.

—DENISE K. MAGNER

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'In' Box

In the latest attempt to address the issue of sexism in scholarly and professional writing, the Modern Language Association has published a new book called *Language, Gender, and Professional Writing*.

The book, by Francine Wattman Frank and Paula A. Treichler, examines what its authors say are the harmful effects of sexist writing, and offers ways writers can avoid insensitive wording or biased language.

In a set of guidelines for non-sexist usage of words, the book explains that the most "painless" way to avoid male "generic" pronouns in writing is to change singular nouns and phrases to plural ones. For example, the sentence "The assistant professor should understand the tenure process before he goes through it" would be rephrased to read: "Assistant professors should understand the tenure process before they go through it."

Copies of the book are available, prepaid, for $14.50, plus $1.50 for postage and handling, from the Modern Language Association's Orders Department, 10 Astor Place, New York 10033.

■

The ability to manage a budget and the ability to communicate effectively are the first and second most essential skills for an English department head to have, according to a survey of 174 deans at colleges and universities around the country.

The survey, by Joseph M. Moxley, assistant professor of English at the University of South Florida, and Gary A. Olson, an associate professor of English there, examined the changing role of English department heads.

"They are not just scholars and teachers anymore," says Mr. Moxley. "They have to be effective managers, too."

The third and fourth most important duties, according to the survey, are encouraging faculty development and rewarding faculty achievement.

■

A "how to do it" guide for management representatives engaged in collective bargaining in higher education has been published by the College and University Personnel Association.

The book, *The Right Ball: A Primer for Management Negotiators in Higher Education*, outlines the procedures and strategies for managers from the time a union begins to organize on campus to the signing of a final contract agreement.

It covers the details of how to choose and develop a strategy, and how to gather data, such as by surveying the administration.

The book is available for $40 a copy from the College and University Personnel Association, 1233 20th Street, N.W., Suite 503, Washington 20036-1250.

Personal & Professional

TIAA Chief Urges Trustees to Take More Active Role in Overseeing Changes in College Retirement Plans

No issue has more serious implications for institutions' finances, Wharton tells board members

By LIZ McMILLEN

BOSTON

College trustees must take a far more active role in overseeing faculty and staff retirement plans at their institutions, says Clifton R. Wharton, Jr., chairman and chief-executive officer of the Teachers Insurance and Annuity Association and the College Retirement Equities Fund.

In the months ahead, college trustees may face "no issue with more serious implications" for the long-term welfare of their institutions and employees, Mr. Wharton told the annual meeting of the Association of Governing Boards of Universities and Colleges here last week.

"The board is where the fiduciary buck stops," said Mr. Wharton. "In an environment of changing demography, changing attitudes, and changing organizations, your role has become more central than ever before."

PHOTOGRAPH FOR THE CHRONICLE BY DON HAMERMAN

Clifton R. Wharton, Jr.: "In an environment of changing demography, attitudes, and organizations, the trustees' role has become more central than ever before."

'Landmark Settlement'

Mr. Wharton's remarks followed a settlement in December with a group of critics that had been pressing for the $70-million pension companies, higher education's largest, to become more flexible and offer new investment options to the 4,200 TIAA-CREF institutions. The agreement, described by some as a "landmark settlement," gives policyholders and higher-education institutions much more control over their retirement plans than ever before.

The agreement, which is expected to take effect by the end of this year, will allow the company's policyholders to transfer existing TIAA-CREF fund accumulations to alternative funds offered by competitors, and to transfer money more freely between TIAA, a fixed-income fund, and CREF, a stock fund. Policyholders will also have the option of receiving their CREF accumulations in a single lump-sum payment upon retirement or job termination (*The Chronicle*, January 4).

More Options to Consider

These changes will be "employer options" under existing TIAA-CREF retirement programs. As a result, college and university trustees must take into account many more options as they develop retirement-plan objectives for their faculty and staff members, regardless of who the pension-fund provider may be, Mr. Wharton said.

Noting that retirement and insurance benefits average 20 per cent of the typical college's payroll (*The Chronicle*, February 22), Mr. Wharton told board members that they cannot overlook the impact those costs have on availability of funds for other purposes, from academic equipment to student aid to grounds-keeping.

More organizations are vying to become approved pension-fund alternatives at many colleges, Mr. Wharton said. Approval of those organizations, he said, should mean that the institution has conducted a thorough analysis of the alterna-

Continued on Page A15

Photocopy Chain Trying to Avert Lawsuit Charging Copyright Violations

By JUDITH AXLER TURNER

Maintaining that they will fight to protect faculty members' "rights" to use copyrighted materials for teaching, officials of Kinko's Service Corporation nevertheless are trying to head off a lawsuit said to be planned against the chain of 440 photocopying stores.

Publishers reportedly will enter a lawsuit against Kinko's for copyright abuse in "professor publishing"—photocopied anthologies used by professors to supplement textbooks or to substitute for them altogether (*The Chronicle*, March 15).

According to Kurt Koenig, vice-president and copyright and trademark counsel for Kinko's, the chain has worked hard to provide a service to professors while protecting the rights of copyright holders, and has sought permission—and paid royalties—whenever necessary.

"We feel we are doing the right thing," he said. "We are protecting the rights of educators, we're protecting the rights of publishers. If anybody wants us to do any more, let them tell us."

'Nothing to Settle Out of Court'

Paul Orfalea, chairperson of Kinko's, said last week that he and Mr. Koenig had talked to Carol Risher, director of copyright and new technology at the Association of American Publishers, and to John Baumgarten, the association's copyright counsel, "to tell them where we're coming from and explaining that we would like to cooperate and settle it out of court." According to Ms. Risher, "there's nothing to settle out of court."

Ms. Risher said the two men had called and asked about a lawsuit, "and I said I can neither confirm nor deny . . . that there is or is not a suit." She said the conversation did not cover settling the lawsuit. "You can't talk about a suit that hasn't been brought," she said.

Concerns about a possible suit prompted the Ad Hoc Educators' Committee on Copyright Law, which in the past has represented users in copyright disputes, to offer itself as a mediator, said Alfred Sumberg, director of government relations for the American Association of University Professors and a member of the committee's executive board.

"We wouldn't want to see another divi-

Continued on Page A18

24-Pct. Turnover Rate Found for Administrators; Some Officials Are Surprised by Survey Results

By DEBRA E. BLUM

WASHINGTON

A study of more than 34,500 administrators in 32 job categories at U.S. colleges and universities has revealed what some higher-education officials describe as a surprisingly high turnover rate.

According to the survey, which compared the names of persons who held the positions in 1987 with those in 1988, some 24 per cent of the 34,500 were replaced.

"Twenty-four per cent is a high figure," said John M. Toller, personnel director at the University of Connecticut. "If it's true, there are a lot of inefficiencies on campuses because every turnover means some instability, training time, and other things."

The lowest turnover rate—17 per cent—was reported for both college presidents and head librarians. The most volatile position, according to the survey, was that of director of annual or planned giving, in which the turnover rate was 58 per cent.

The survey was conducted by Higher Education Publications Inc., which publishes an annual national directory of more than 3,500 higher-education institutions. The directory lists the names and titles of administrators, along with each institution's address, phone number, enrollment, and other details.

Promotions Included

By comparing the listing of administrators in its 1987 directory with the one in 1988, the company determined the turnover rate in each position. The results do not distinguish between administrators who were replaced outright and those who were promoted.

Mr. Toller and others also pointed out that the rates did not necessarily reflect

Continued on Following Page

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Turnover Among Administrators a Surprise to Many in Academe

Continued from Preceding Page

any trends in job turnover or fluctuation, because the survey is new and untested against information from other years.

Among the highlights of the survey:

- The turnover rate at four-year private institutions was 5 percentage points higher than at four-year public institutions. For several positions, such as chief of facilities and director of affirmative action, the turnover rate was more than 10 percentage points higher at private institutions than at public institutions.
- Chief executives who headed a campus that was part of a university system were slightly more likely to have changed jobs than were those in charge of a system or an institution not belonging to a system.
- After directors of annual or planned giving, directors of student housing had the highest turnover rate, 42 per cent, followed by directors of health services, 40 per cent.
- After the 17-per-cent turnover rate for chief executives and head librarians, the next lowest rate was 19 per cent, for chief business officers, registrars, and directors of computer centers.

Robert F. Banks, assistant provost and assistant vice-president for academic human resources at Michigan State University, said the varying turnover rates among different categories of jobs were understandable. Registrars and librarians, for example, probably tend to stay in their positions longer than other administrators because of the nature of their work, he said.

"They are well-respected jobs in higher education that require experience and intricate knowledge of the campus to perform effectively," he said. "Also, there's really no external market for them."

Versatility in Health Fields

On the other hand, a director of health services, he said, may have a variety of opportunities for positions outside of academe, in such fields as private medical practice or corporate medicine. Other positions less specific to higher education, such as development and personnel officers, show a higher rate of turnover, too.

While Mr. Banks said the 24-per-cent overall turnover rate reported by the survey seemed a little high, he was reluctant to draw any conclusions before studies covering longer periods were completed.

Mary Joan McCarthy, interim vice-president of the Council for Advancement and Support of Education, said the relatively high rate of movement among development officers and directors of annual or planned giving might also be due to a great deal of career mobility associated with those positions at colleges and universities.

"As development-type positions gain in importance in the institutions, it becomes easier to move up and on," she said.

Mr. Toller, who has helped the College and University Personnel Association study the salaries of higher-education administrators, suggested that the difference in the turnover rates between public and private institutions could be attributed to the varying amount of available resources to pay administrators.

"Generally private universities have smaller budgets than public institutions, so we would expect more turnover because people are attracted to campuses where they can be paid more," he said.

Higher Education Publications conducted a similar survey six years ago that measured job changes over a two-year period. The turnover rate then was 39.3 per cent. Company officials said the figures from the new survey, which covers a one-year period, were not comparable with those from the old one.

Job Turnover Rate Among College Administrators, 1987 to 1988

	Public four-year		Public two-year		Private four-year		All institutions	
	Total positions	Rate	Total positions	Rate	Total positions	Rate	Total positions	Rate
Chief executive officer	259	22%	778	15%	1,275	16%	2,312	17%
Chief executive officer within a system	294	17%	247	18%	54	42%	595	20%
Executive vice-president	77	31%	113	36%	251	30%	441	31%
Assistant to president	275	29%	215	31%	384	34%	874	32%
Chief academic officer	516	26%	929	24%	1,226	23%	2,671	24%
Registrar	452	13%	578	19%	1,117	21%	2,147	19%
Director of admissions	462	16%	634	23%	1,086	26%	2,182	23%
Head librarian	525	13%	761	20%	1,169	16%	2,455	17%
Director of institutional research	278	21%	187	28%	257	41%	722	30%
Chief business officer	505	17%	855	17%	1,206	21%	2,566	19%
Director of computing and information management	123	27%	86	37%	175	35%	384	33%
Director of computer center	388	17%	323	12%	511	25%	1,222	19%
Director of personnel services	387	20%	263	26%	429	27%	1,079	24%
Chief of facilities/physical plant	187	29%	162	30%	308	41%	657	35%
Director of security/safety	202	28%	88	26%	209	30%	499	28%
Director of affirmative action/equal opportunity	158	31%	52	44%	50	42%	260	36%
Director of health services	91	36%	15	26%	96	45%	202	40%
Contract administrator	154	20%	50	38%	126	33%	330	28%
Chief public-relations officer	314	25%	320	30%	668	32%	1,302	30%
Director of information office	228	22%	157	27%	286	38%	671	30%
Director of alumni relations	324	27%	75	34%	669	30%	1,068	30%
Chief of development	353	30%	272	38%	971	32%	1,596	33%
Chief student-life officer	501	18%	770	19%	1,059	25%	2,330	21%
Director of student placement	375	20%	251	29%	585	26%	1,211	25%
Director of student financial aid	463	16%	633	21%	946	26%	2,042	22%
Director of student counseling	266	19%	277	22%	338	27%	881	23%
Director of student housing	145	31%	20	45%	176	52%	341	42%
Athletic director	185	36%	111	34%	307	39%	603	37%
Chaplain	9	22%	15	46%	255	39%	279	39%
Director of annual or planned giving	31	58%	13	38%	151	60%	195	58%
Chief planning officer	137	27%	80	31%	153	32%	370	30%
Total	8,689	22%	9,350	23%	16,518	27%	34,557	24%

Note: The figures are based on an analysis of names of administrators in the 1989 and 1988 editions of "HEP Higher Education Directory." The turnover rate was calculated by comparing the names of jobholders in each position at institutions which provided information for July 1988 and July 1987. Totals exclude figures for private, two-year colleges.

SOURCE: HIGHER EDUCATION PUBLICATIONS INC.

Appointment of Conservative as Dean Angers Professors at Baptist Seminary

WAKE FOREST, N.C.

The governing board of Southeastern Theological Seminary has appointed a new dean of the faculty in the face of unanimous opposition by professors.

The board also approved a report to be sent to the institution's accrediting agencies that blames the seminary's former president and its faculty members for such problems as declining student enrollment.

The disagreements over the new dean and the accreditation report were the latest in a series of disputes between Southeastern's faculty members, many of whom consider themselves moderate Baptists, and the board, which has been dominated by conservatives since 1987. The board's decision at that time to weaken the faculty's role in the selection of new professors led to protests and the resignation of the seminary's president, W. Randall Lolley, and several top administrators.

Since then, Southeastern has been a battleground in the decade-long struggle between conservatives and moderates for control of the Southern Baptist Convention. The convention sets Southern Baptist church policy and operates Southeastern and five other seminaries.

'Still Very Much in Crisis'

Conservative Baptists believe that the Bible is inerrant, a much stricter interpretation than that followed by moderates.

"The differences between the faculty and the administration and the board, and the differences within the board itself, prove that we're still very much in crisis," said the Rev. Mark S. Caldwell, a member of the governing board who is a moderate.

Some faculty members at Southeastern said they felt that the new administrator, the Rev. L. Russ Bush, III, a conservative, was unqualified for the position because he had no administrative background.

The Rev. Robert D. Crowley, chairman of the seminary's board, said he had complete confidence in Mr. Bush's competence as an administrator and a scholar. He said the opposition to Mr. Bush, an associate professor of philosophy of religion at Southwestern Baptist Seminary for 14 years, stemmed from ideological concerns over his conservatism.

Mr. Crowley said the report the board had submitted to the seminary's accrediting agencies—the Southern Association of Colleges and Schools and the Association of Theological Schools—was the trustees' response to the associations' investigations of academic freedom and the trustees' role in governance at the seminary. He said that the report was not intended to attack the previous administration, but that the trustees had deflected much of the blame for the seminary's problems away from themselves.

In particular, the board's report said trustees were forced to change the seminary's hiring practices because the former president did not have enough power over faculty members to hire professors.

Meanwhile, the American Association of University Professors is expected to publish soon a report on its investigation of the seminary that could lead to A.A.U.P.'s censuring the institution. —DEBRA E. BLUM

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News Summary

Articles on inside pages

JOHN C. PHILLIPS

The University of Arizona's annual spring rodeo (above) is one of 110 college rodeos this year: Page A34.

A professor of botany believes cellular slime molds are a key to restoring tropical rain forests: Page A4.

Stanford University released a 244-page report examining race relations on the campus: Page A15.

President Bush unveiled details of the education programs he proposed to Congress in February: Page A23.

An Oklahoma newspaper advertisement has sparked a political battle that has endangered the state's higher-education budget: Page A23.

Efforts among universities to profit from their research have caused some scientists to fear the field of "technology transfer" may be growing too fast: Page A28.

Black athletes in the N.C.A.A.'s Division I feel racially isolated on campuses, a study finds: Page A33.

Violence that delayed Namibia's transition to independence also jeopardized the prospects for change at the territory's only institution of higher education: Page A41.

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NCAA Chief to Seek Accrediting System for College Sports

Plan comes at time public is seen skeptical of athletics' integrity

By DOUGLAS LEDERMAN

The executive director of the National Collegiate Athletic Association this month will ask college presidents and other N.C.A.A. leaders to consider implementing a system of accreditation for the sports programs of the association's 800 members. The proposal, from Richard D. Schultz, the N.C.A.A. chief, is a dramatic departure from past practice in the association.

It comes at a time when evidence is mounting that the public is becoming increasingly skeptical about the integrity of big-time college sports. A Media General / Associated Press poll released last week showed that most Americans believe that colleges overemphasize sports and that athletes are paid under the table.

That unfavorable report followed on the heels of a *Time* magazine cover story about the failure of universities that sponsor big-time sports programs to provide their athletes with an education, and a major *Sports Illustrated* story that called big-time college sports "an American disgrace." Those reports detailed cases of rule-

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ERIC POGGENPOHL

Richard D. Schultz: N.C.A.A. members would be reviewed every five years in such areas as recruiting, admissions standards, and graduation rates.

Investigators to Visit Campuses to Check for Illegal Drug Use

Probe will focus on compliance with law by Pell Grant recipients

BALTIMORE

Education Secretary Lauro F. Cavazos announced here last week that Education Department investigators would make spot checks on college campuses to determine if Pell Grant recipients are complying with a new law barring illegal drug use by those obtaining federal grants.

Under the law, which was enacted last year, Pell Grant recipients, starting this fall, must sign a statement that says: "I will not engage in the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance during the period covered by my Pell Grant." (The federal government does not classify alcohol as a controlled substance.)

No Plans for Drug Testing

Mr. Cavazos offered few specifics about the enforcement campaign, which he announced at the annual meeting of the National Conference on Drug-Free Schools and Communities.

Jim Bradshaw, a spokesman for the department, said he thought Education Department officials who make the campus visits would try to determine whether students receiving Pell Grants had signed the pledge and if those who had signed it were in fact not using drugs.

Asked whether drug tests would be used, he said: "Absolutely not."

In his speech, Mr. Cavazos said "we expect to rely on tips from the public" in finding Pell Grant recipients who use ille-

Continued on Page A26

More Minority Programs Now Emphasizing Efforts to Keep Students Enrolled in College

By MARY CRYSTAL CAGE

More and more state governments and university systems are shifting the emphasis of their programs for minority students from recruiting them to keeping them in college until they graduate.

States are developing strategies to increase the number of minority students who transfer from two-year to four-year institutions; they are designing computer programs to track student performance and evaluate institutional efforts; and they are drafting codes of conduct to try to reduce the level of racism on their campuses.

They are also providing financial sticks and carrots for colleges that fail or succeed to take such measures themselves.

'A Revolving Door'

"If we don't deal with the total environment in which students study, simply removing economic obstacles just provides a revolving door," says T. Edward Hollander, chancellor of the New Jersey Board of Higher Education.

"We made the same mistake in New Jersey that everyone around the country made. Initially, we thought that the issue of minority access was recruitment. We quickly found that was insufficient. Students need much more support than we anticipated."

Twenty years ago, when the drive to bring minority students into America's colleges began, retention was sadly ignored, says Charles E. Morris, chairman emeritus of the Illinois Committee on Black Concerns in Higher Education.

Mr. Morris, who is also vice-president of academic services at Illinois State University, says one way state universities could easily keep more minority students in college is by changing the "abysmal" rates of transfer from community colleges to four-year institutions.

"A large number of them aren't even enrolled in transfer programs," Mr. Morris

Continued on Page A24

Boston University May Soon Get the Opportunity It Wants: to Run—and Reform—a City's Schools

By BEVERLY T. WATKINS

BOSTON

At an elementary school in nearby Chelsea, a television meteorologist used two clear plastic bottles partly filled with water to show attentive fifth and sixth graders just how a tornado develops. The splashy presentation marked the kick-off of an interdisciplinary science program that Boston University has started with the city's schools.

The new program is the first piece in a bold 10-year plan by the university to take over management of the Chelsea public schools and reform them.

The unprecedented plan got a boost last month when the Chelsea School Committee approved a contract giving the university authority to run the system. The plan had been on hold since November as lawyers looked for solutions to issues raised by critics.

If and when the plan is put into full operation, it will mark the first time that a pri-

Continued on Page A16

FRED SWAY, BOSTON UNIVERSITY

A Chelsea pupil and a Boston University instructor discuss how tornadoes start, in a science program marking the university's growing role in the schools.

MARGINALIA

From *Campus USA*:

". . . Some words lend themselves to memory tricks called pneumonics. Take the problem of whether to write 'stationary' or 'stationery.' If you remember 'e' for 'envelope,' then you'll remember that the paper business is 'stationery.' The more ridiculous the pneumonic, the better. For example, in trying to remember the 'd' in 'bludgeon,' remember, 'There will be "blud" when I bludgeon him.' Silly as they sound, these devices really help."

So what else is pneu?

■

Notice from the honors program at the University of Portland:

" 'The CIA poses the ultimate treat to democracy, and is a major cause of the world's move toward nuclear extinction,' charges John Stockwell, who will speak on campus Monday, March 27, 1989. . . ."

Masochist!

■

You may recall that on March 29, in this space, Barry Glassner, of the University of Connecticut, asked: "If university departments were to start radio stations, what would their call letters be?" He answered his own question with such suggestions as WRNR (leisure studies), WYMI (philosophy), and WIXI (honors program).

Now J. Thomas Lockard, of Kenyon College, signs on with *these* call letters:

The development office: KASH
Health services: KARE
Philosophy: KANT
Music: WHUM
Athletics: WWIN
Admissions: WURN

That last one means "You are in," Mr. Lockard explains helpfully.

■

The new mathematics, Kentucky subdivision (from the University of Kentucky *Kernel*):

"She said 47 percent of all full-time faculty at full professor rank were men and only 17 percent were women. . . ."

■

The new mathematics, New York division (from *The Faculty Voice*, a publication of the Syracuse University chapter of the American Association of University Professors):

"*Erratum*—in Table 1 of the Chapter's 1988-89 'Committee Z Report,' it was mistakenly indicated that there were 132 instructors at the University earning an average salary of $6,227 each. The correct figures are 13 instructors at $26,227 each."

■

From *University Times* (California State University, Los Angeles):

ACADEMIC SENATE DISCUSSES
CIRRICULUM CHANGES

May we suggest one? —C.G.

In Brief

200 at Central Michigan Protest Minimum Wage

Nearly 200 student employees at Central Michigan University walked off their jobs for a day last week to protest the low hourly wage the university pays them for working in cafeterias and the library.

The students criticized the university for paying student employees the federal minimum wage, $3.35 an hour, since 1981, while increasing the president's salary 61 per cent and raising tuition 73 per cent. More than 4,000 students hold jobs at the university.

Around the country, other students have held similar rallies in support of a bill now in Congress that would raise the minimum wage to $4.65 by 1992.

A Central Michigan spokesman said administrators did not plan to increase salaries for part-time workers. "We don't have much choice," the spokesman said. "We have a financial squeeze going on throughout the university."

Animals Treated on Campus After Oil Spill

VALDEZ, ALASKA

Two campus buildings at Prince William Sound Community College have been converted into temporary animal-rescue centers to treat birds and otters damaged when the oil tanker *Exxon Valdez* ran aground and spewed oil into Alaskan waters.

As of late last week, about 100 birds and 50 otters had been cleaned of oil and treated (*right*) at the rescue centers, said Michael A. Lewis, a spokesman for the college.

At first, both birds and otters were being treated in a dormitory on the campus, but the building was soon overwhelmed. The college then offered its gymnasium to the rescue effort, which is being financed by the Exxon Shipping Company, Mr. Lewis said.

Last week workers converted the gymnasium into an "otter hospital" with 60 large tanks to clean and treat the animals. Birds continued to be treated at the dormitory.

Students and employees at the college have been volunteering in the animal-rescue effort. "People on campus can at least work on the animal cleanup and work out their frustrations over the spill," Mr. Lewis said.

—DENISE K. MAGNER

REUTERS/BETTMANN NEWSPHOTOS

Teach About AIDS Risks, Medical Schools Are Told

Medical schools should make sure their students are prepared to care for people with AIDS, according to a committee of the Association of American Medical Colleges.

The committee said the schools should teach students not only about AIDS, sexuality, substance abuse, epidemiology, and public health, but also about the risks that physicians face in treating people infected with H.I.V., the virus that causes AIDS. The schools should also help students overcome their biases and prepare them to cope with the psychological effects of losing young patients, said the committee, which is formally called the Committee on AIDS and the Academic Medical Center.

The pervasiveness of H.I.V. infection will outstrip the ability of H.I.V. specialists to care for people with AIDS, the committee said, making it necessary for primary-care physicians to help more.

Copies of the committee's 18-page report, "The H.I.V. Epidemic and Medical Education," are available for $12.50 each from the association's publications department at One Dupont Circle, N.W., Washington 20036.

Vandals Hit Mich. Paper, Calling It 'PLO Daily'

Vandals attacked the offices of the University of Michigan's student newspaper last week, defacing walls with spray-painted slogans warning editors that "Jew Haters Will Pay" and calling the paper the "P.L.O. Daily."

The break-in followed a protest last month by nearly 200 students, who criticized the paper, the *Michigan Daily*, for what they said was its anti-Israel policy. In particular, the protesters objected to an editorial discussing rumors that Israel, along with Arab nations, could be responsible for the bombing of Pan American Airways flight 103, which exploded over Scotland in December.

Daily editors later met with protesters to discuss the editorials.

The *Daily*'s editor, Adam Schrager, said: "My emotions range from anger to fear. I've taken great steps to address this issue. Someone obviously has not been listening."

Two days before the incident, Michigan's president, James J. Duderstadt, sent letters to all 35,000 students on the Ann Arbor campus asking them to be more tolerant of ethnic, racial, and religious differences.

Mr. Duderstadt also said harassment or expressions of racism or sexism were "intolerable."

Morris Brown Students Protest Dorm Conditions

Students at Morris Brown College took over the administration building for 36 hours to protest unsanitary conditions in the dormitories, poor cafeteria food, and

New Study Confirms Controversial Finding on Above-Average Test Scores

By JEAN EVANGELAUF

SAN FRANCISCO

A controversial finding in 1987 that most schoolchildren in all states earn above-average scores on national achievement tests has been confirmed by a new federally sponsored study.

In announcing their preliminary results here at the annual meeting of the American Educational Research Association, researchers said that John Jacob Cannell, a physician who garnered national attention when he reported his surprising conclusion, was essentially correct. But they added that he had overstated the extent to which states and school districts report above-average achievement.

Feels 'Vindicated'

Dr. Cannell, who has become something of a gadfly on testing issues since releasing his study, said he felt "vindicated" by the new findings. "I do feel that my main points have been corroborated," he said.

Dr. Cannell was "clearly right" about his basic conclusion, said Daniel M. Koretz, a senior social scientist with the RAND Corporation who commented on the research at a meeting here. "In comparison with national norms, districts and states are presenting inflated results, results which are misleading the public," he said.

The researchers gave no definitive reasons for the above-average scores, but suggested the following contributed to score gains:

■ The use of national norms that are out of date or not representative.

■ Improvements in students' test-taking ability.

■ The teaching of items that appear on the tests.

■ Actual gains in achievement.

Students who take norm-referenced tests are measured against the performance of a national sample that could be as much as seven years old, not against the performance of others who take the test in the same year.

Dr. Cannell rejected the notion that achievement had improved, saying that such other measures of achievement as high-school graduation rates and scores on college-admissions test showed little or no improvement.

He instead blamed test publishers for above-average scores. "Teaching the questions leads to happiness throughout the jock-ocracy of the phys-ed majors and coaches that run America's public schools," he said.

"When the jock-ocracy gets rising scores, publishers get rising sales, so the publishers make sure the teachers teach the test by making sure the teachers know the exact questions," he added.

Eva L. Baker, director of the Center for Research on Evaluation, Standards, and Student Testing at the University of California at Los Angeles and a member of the research team, criticized the growing use of norm-referenced tests, and called for better measures of achievement.

"When normed tests are used as a reform instrument for accountability purposes rather than as a very general check on the system," she said, "then the potential for evil consequences occurs."

Leigh Burstein, a professor of education at U.C.L.A. and another member of the research team, added: "If this super concern about how many kids score above the average dominates the discussion, we will have lost the battle."

"We need both better yardsticks and better use of them," he said.

Dr. Cannell supported the use of national tests, saying that testing "really defines how good the curriculum is." National norms are important, he said. "States want to compare themselves to the nation."

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inadequate security on the campus.

Although only 20 students occupied the building, 100 or so people, not all of them students at the college, stood outside throughout the protest to show their support.

The sit-in ended when the administration agreed to address the problems.

Cynthia M. Bell, a spokeswoman for the college, said many of the students' complaints were already being addressed. The protest was sparked by students' concern over a deadline for paying deferred tuition and fees, she said. The deadline was extended.

Florida State U. Student Accused of Harassment

Police at Florida State University have filed charges against a student accused of making death threats against a professor, following his family, telephoning him 97 times in a single night, and having pizzas delivered to his home without his knowledge.

The student had taken a class taught by the professor, Philip Bowers, who teaches mathematics, police said. After the harassment incidents began, the student removed her file from the campus health center, where she had gone for counseling, they said.

The student has been charged with one count of disruption of an educational institution and one count of petty theft for taking the file. As a condition of her release, she was ordered by court officials to have no further contact with Mr. Bowers or his family. But police said she continued to harass the family.

The student was also later charged with making harassing phone calls. All three misdemeanor charges were pending, and the case was under investigation.

Police had not determined what prompted the incidents, but others familiar with the case said the student had shown a romantic interest in the professor and was upset when he failed to respond.

A lawyer for the student said she denied the allegations.

Trustees of Colby-Sawyer Vote to Enroll Men

The trustees of Colby-Sawyer College have voted 22 to 1 to admit men in the fall of 1990.

The vote came after several weeks of student protests and demonstrations against coeducation. The all-women's college, located in New London, N.H., started as a coeducational secondary school in 1830 and today has 450 students. The trustees said the goal was to enroll 40 men in the 1990 freshman class.

Correction

A map showing state-by-state changes in the number of high-school graduates from 1986 to 2004 contained outdated information for Oregon (*The Chronicle*, March 1). In a revision of its data, the Western Interstate Commission for Higher Education said it expected Oregon to see a decline of 1 per cent, not 16 per cent.

PORTRAIT

A Physics Professor Proves TV Can Handle the Tough Subjects

By JUDITH AXLER TURNER

For David L. Goodstein, pretending to teach a physics class is more difficult than actually teaching a physics class.

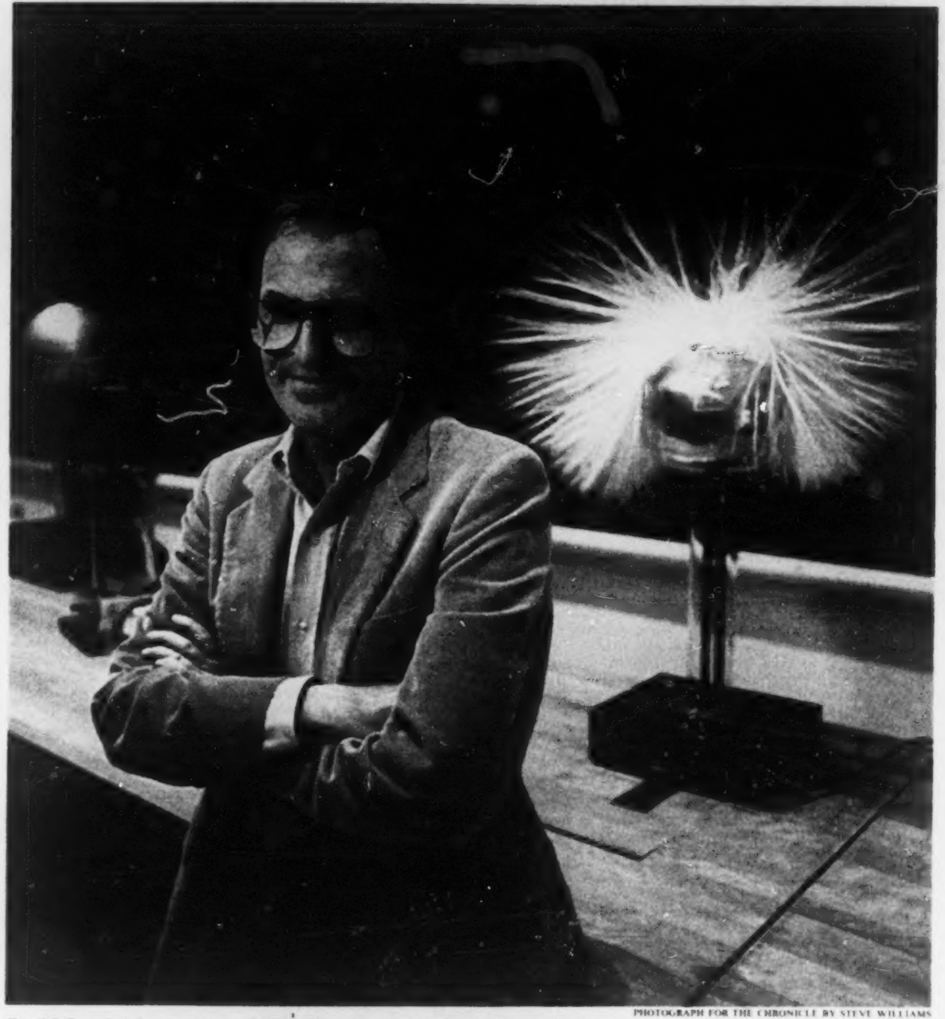
Mr. Goodstein, whose 52-part freshman-physics television course, "The Mechanical Universe," has made him a star in many high schools and colleges, discovered that when he was filming the opening and closing segments of the show—sequences that feature him in a specially wood-paneled classroom at the California Institute of Technology, where he normally teaches without the wood paneling.

Teaching a class of 20 "extras" told him a lot about teaching.

"They didn't know what I was talking about," Mr. Goodstein says. He realized then how much he depends on students for cues about how well he is conveying information. With a class that neither knew nor cared about his lecture, Mr. Goodstein was lost.

The producer finally solved the problem by bringing in a few real students—people who could follow the lecture.

"There is something human about direct contact, about feedback, that makes lectures work," says Mr. Goodstein.



PHOTOGRAPH FOR THE CHRONICLE BY STEVE WILLIAMS

David Goodstein, creator of "The Mechanical Universe," a television physics course: "I thought this was potentially the best thing I could do. That's why I gave it five years of my life."

The Stuff of TV Commercials

Creating a television course that could be effective without human contact was a challenge. Mr. Goodstein's solution was to use the stuff of television commercials: drama and animation. "The Mechanical Universe" has actors playing physics greats such as Isaac Newton and Gottfried Wilhelm von Leibnitz writing with quill pens, arguing, and eating—scenes designed to capture the people behind the ideas.

It also has some 550 animated sequences. In some, equations move about the screen in an "algebraic ballet" like members of a marching band rearranging themselves in new formations. In others, a cartoon David—who looks suspiciously like Mr. Goodstein—flings a stone at a cartoon Goliath.

In the segment on relativity and the speed of light, a cartoon Albert Einstein and a cartoon Hendrik Antoon Lorentz demonstrate why observers moving at different speeds measure light differently, even though it is traveling at a constant speed. "That's the program I show to physicists," Mr. Goodstein says. "It always leaves them speechless."

Despite the mathematics and the difficult physics, the show appeals both to physicists and to casual television watchers. It was popular enough in Miami to get a Nielsen rating—number two in its time slot.

The entire series is an answer to those who say that television cannot handle tough subjects. "The Mechanical Universe" has won 20 awards, including the prestigious Japan Prize for Television, the world's most coveted award for educational programming.

The show's backers are happy, too, despite the enormous cost of the series. Most of the money—$6-million—came from the Annenberg/Corporation for Public Broadcasting Project, which distributes tapes of the show to public-television stations, colleges and universities, and libraries. An additional $3.5-million came from the National Science Foundation. The International Business Machines Corporation kicked in the last $1.5-million.

Mr. Goodstein never set out to be a television star, never set out to make an $11-million series, he says. He was happy at Caltech, where he has been on the faculty for more than 20 years, and is today vice-provost and professor of physics and applied physics.

Genesis in a 1979 Assignment

The program's genesis was in an assignment Mr. Goodstein accepted in 1979 to rewrite the curriculum for Caltech's two-year physics requirement. The assignment was not lightly given—or received. Mr. Goodstein would be restructuring a spectacularly successful physics curriculum developed by Richard P. Feynman, a Nobel laureate and, according to Mr. Goodstein, "the most important scientist on earth after Einstein died."

But the course needed to be changed. Mr. Feynman "was such a dynamic personality, that taking that course from him was a lifetime experience for those students. He was electrifying," Mr. Goodstein says. "But it was too difficult a course to be taught by anyone but him. With ordinary mortals trying to teach the same course, it didn't work as well."

Mr. Feynman, who died last year, taught physics by relating concepts to contemporary research.

Mr. Goodstein chose an opposite tack. He teaches physics as history, "trying to relate the historical excitement of the original discovery," he says.

When he saw how successful his approach was, Mr. Goodstein sought ways to make it available to others. He settled on television, which he saw as becoming more and more important in education. He felt that "Caltech should be a leader and not a follower in its use," he says.

He also had a personal agenda, one that he did not share with the people at the Annenberg project while he was going back regularly for more money: "I went into it because there is a critical problem of scientific literacy," he says. "Ninety-five per cent of the population is scientifically illiterate. That is a threat to Jeffersonian democracy."

Enlightenment and Democracy

Democracy, Mr. Goodstein says, requires an enlightened public, and, in a scientific and technological society, that public must be scientifically enlightened. And enlightenment can't wait for college; students need to be reached in high school, Mr. Goodstein says. The most effective way to reach them is by giving high-school physics teachers more training and more course materials.

"I thought this was potentially the best thing I could do," he says. "That's why I gave it five years of my life."

Although the course is used in many colleges and universities either to supplement classroom courses or as a stand-alone telecourse, its greatest success has been in high schools, hundreds of which have purchased the high-school version of the course (which is designed to be used in small bites to supplement a lesson). Hundreds more have copies of the original version carried on public-television stations.

That the television course has been in secondary schools is evident at Caltech. Every student in Mr. Goodstein's freshman-physics course this year saw "The Mechanical Universe" in high school.

Maybe that explains why Mr. Goodstein finds the students "livelier and more interesting than any in years."

And maybe it's because when he shows snippets of animation from the show to drive home lessons just learned, "they love it, and pay more attention when it's on, and applaud at the end."

Give & Take

Most Americans will not increase their current levels of charitable activity in 1989, a new study by the Marist Institute for Public Opinion at Marist College has found.

In a survey of 1,010 Americans conducted in January, almost 70 per cent said they expected to maintain their present level of giving and volunteering. Those who plan to change their level of giving this year tie their decisions to changes in their disposable income. Nearly 54 per cent of those who expect to increase their contributions, for example, say that decision was based on an increase in their income.

Non-profit organizations that rely on volunteers and donors should pay attention to those who already are involved in their organizations, the report says. Those people are the ones who are most likely to increase their support.

■

Oral Roberts has made another appeal—this time to students at the university he founded.

The evangelist says he must raise $11-million by May 6 or creditors will start dismantling his ministry and Oral Roberts University. According to press accounts, Mr. Roberts recently told students at a campus chapel service that scandals in other ministries had caused monthly donations to his ministry to decline from $5-million to $2.7-million.

During the service, Oral's son Richard, who serves as the university's executive vice-president, laid a $100 bill at his mother's and father's feet. Then hundreds of students left checks, change, and bills on the stage. About $8,500 was collected, the university said.

Two years ago, Oral Roberts said that God would "call me home" if he didn't raise $8-million for scholarships. Although $9-million was collected, that appeal raised a storm of controversy and exacerbated financial losses at the medical school and hospital (*The Chronicle*, June 8, 1988).

■

Northern Illinois University, which usually pulls some kind of April Fool's prank with the news media, this year proposed a twist on the leveraged buyout.

A press release dated April 1 quoted a university vice-president as saying he would lead a buyout of the university so that "its true market value will finally be achieved."

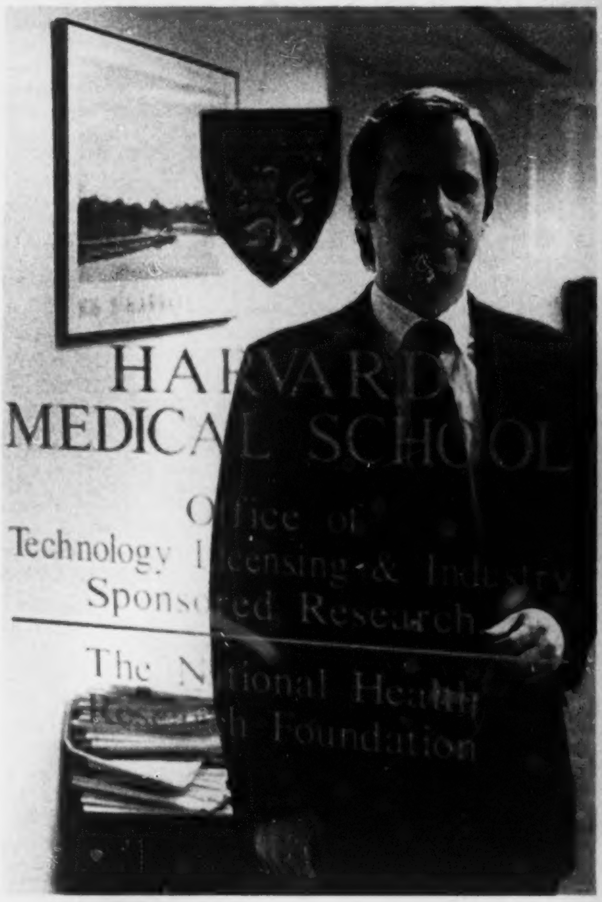
"Our shareholders, the people of Illinois, deserve better than they've been getting from our state legislature, which is starving Northern and public schools at all levels," said Tom Montiegel, vice-president for development and university relations.

Bob Woggon, director of public information, said the university was tired of saying that Illinois public institutions deserve more tax support. "This year we thought we would have a little fun with it."

Business & Philanthropy

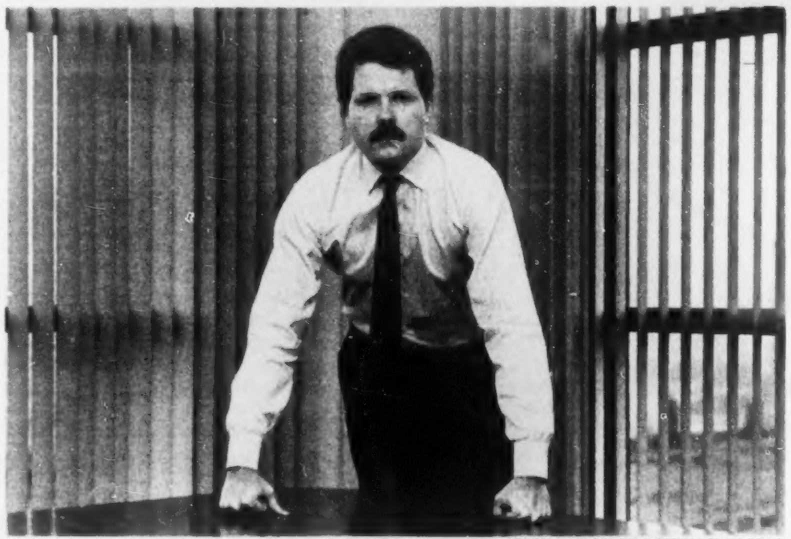
Universities Said to Go Too Fast in Quest of Profit from Research

Campus officials warn of underestimating risks



Stephen P. Atkinson of Harvard Medical School: "If you enter into business with your faculty it represents an unacceptable conflict."

E. Michael Egan: "They all want million-dollar, up-front payments and all sorts of research funds. Everybody wants to be the Donald Trump of licensing overnight."



PHOTOGRAPHS FOR THE CHRONICLE BY JOE WRINN

By GILBERT FUCHSBERG

An explosion of new efforts among universities to profit from their research has raised concerns that the "technology transfer" field may be growing too fast.

Although more institutions are taking a close look at their practices and policies, campus patent officials fear that many have not developed adequate measures to guard against potential ethical, legal, and financial problems involved in bringing technology to the marketplace.

The primary worry is that many institutions see only dollar signs, and are ignoring warning signs, as they accelerate into an area pocked with pitfalls.

Many believe universities are paying insufficient attention to the potential for conflicts of interest, a long-time concern that grows more threatening as ties among universities, businesses, and professors become more common and complex.

Some also fear that universities are overestimating the potential payoffs and underestimating the many legal and financial risks associated with converting laboratory discoveries into commercial products.

Lawsuits at Illinois

The University of Illinois is learning about those issues the hard way. University officials have been hit by a pair of lawsuits involving a company founded by a faculty member to market computer technology he developed.

"If one is not careful, the dangers involved can compromise the values and mission of the university," says C. K. Gunsalus, assistant vice-chancellor for research at the University of Illinois. The attitude of many universities, she says, "seems so cavalier."

"I say 'Wait.' It's so much more complex and so much more dangerous," she continues.

So far, universities have been left to police themselves, and many are adopting more stringent guidelines to cover such issues as stock ownership and spin-off companies developed around university technology. But those efforts may not be enough. Pressure is growing in some circles for federal scrutiny of researchers and their financial links.

Scene Changed in 1980

Some universities started seeking profits from their sponsored research decades ago. But the scene changed dramatically in 1980, when a new law granted universities the right to retain most patents that arose through federally financed research, which constitutes the bulk of research conducted on the nation's campuses.

The law allowed universities, with some restrictions, to commercialize patented discoveries developed with federal funds. Typically, they do that through licensing agreements under which companies pay them an up-front fee as well as royalties based on a share of product sales.

Only in the last three years or so, however, following some adjustments to the law and some early successes, have more than a few dozen institutions sought to exploit those commercialization rights in an aggressive way.

No one has a firm sense of how much the field has grown or how lucrative it may prove to be. But by some accounts, between 150 and 200 institutions are now engaged in some form of technology transfer. Membership in the principal national organization of university patent officials has nearly tripled in the last five years, and now includes some 400 people from more than 125 universities.

To be sure, the field continues to be dominated by Stanford University, the Massachusetts Institute of Technology, the Wisconsin Alumni Research Foundation, and a handful more. And the most active research institutions continue to increase their efforts. In the last seven months alone, for example, Harvard and the Johns Hopkins Universities and the University of Chicago have started multimillion-dollar venture-capital funds to invest in start-up companies based on profitable work emerging from their labs.

More institutions are getting in on the act. Many operations remain modest, and dozens of universities delegate their licensing activities to outside companies. But in growing numbers, universities are expanding their campus patent offices, compiling catalogues and data bases of their discoveries, seeking high-stakes licensing deals, and spawning new companies in partnership with their professors.

U. of Houston Gets $4.5-Million

The University of Colorado, for example, recently set up a for-profit company to help develop promising technologies, and two spin-offs have occurred so far. The Ohio State University last year hired a scientist with business experience to solicit corporate interest in new discoveries. Cornell University just added "technology marketing" to the title of its patents office, to recognize its expanding role.

In one of the biggest deals yet, the University of Houston last summer sold for $4.5-million the exclusive rights to superconductivity advances developed there. That amount may soon be dwarfed: At the University of Utah, expectations are high that a recently announced breakthrough in fusion will overcome its many doubters, prove a viable source of cheap energy, and yield tens of millions of dollars to its inventors and the university.

"We have people telegramming from around the world saying, 'We're flying in

Continued on Following Page

Top 20 Universities Receiving Patents

	1986	1987	1988
Mass. Inst. of Tech.	42	66	66
U. of California	54	65	60
Stanford U.	33	42	56
U. of Minnesota	15	28	27
U. of Florida	10	13	24
Johns Hopkins U.	19	18	22
U. of Wisconsin *	17	11	21
U. of Texas	24	10	20
Harvard U.	2	5	20
Cal. Inst. of Tech.	25	27	18
Cornell U. *	15	29	16
Columbia U.	6	7	16
Iowa State U.	9	15	15
U. of Michigan	10	1	15
Ohio State U.	5	6	14
Rockefeller U.	4	10	11
U. of Rochester	8	6	11
State U. of N.Y. *	11	18	10
U. of Utah	8	12	10
Northwestern U.	8	11	10

* Indicates a research foundation

SOURCE: UNIVERSITY OF MINNESOTA

Pressure to Cash In on Research Stirs Conflict-of-Interest Issues

By DAVID L. WHEELER

Increasing pressure on scientists from federal and state governments and their own universities to move research out of the laboratory and into profitable use has resulted in a backlash of concern over financial conflicts of interest.

Congress, federal research agencies, and the scientists themselves are increasingly scrutinizing the conflicts involved in research, an area that has been vaguely and irregularly defined in the past.

The federal investigations now under way focus on the financial ties between researchers conducting drug trials and the companies that make the drugs. In the past year, at least two Congressional committees and the Inspector General of the Department of Health and Human Services have looked into potential conflicts of interest in drug research. The National Institutes of Health have indicated that they will begin restricting drug researchers' financial ties to pharmaceutical companies (*The Chronicle*, March 22).

One group of biomedical researchers who are beginning a study of treatments for patients after they undergo coronary-bypass surgery is not waiting for others to impose conflict-of-interest standards. In last week's *New England Journal of Medicine*, the scientists, from Baylor College of Medicine, the University of Minnesota, and some other research institutions, took the unusual step of setting their own conflict-of-interest policies.

Research Could Affect Millions

The scientists said they felt that imposing guidelines on themselves was necessary because of the tremendous interest on the part of the general public and those in the financial markets in the outcome of clinical trials and because of the lack of any widely accepted definition of conflicts of interest. The scientists said their research could ultimately affect millions with coronary-artery disease.

The group of researchers pledged that, while the study was in progress, they would not hold stock in the companies making or distributing the drugs being evaluated.

The scientists also vowed that neither they, their dependents, nor their spouses would serve during the study as paid consultants to companies with drugs under study.

Scientific societies and university associations, already trying to ward off federal interference in science after Congressional hearings on scientific fraud, have quickly begun to examine the conflict-of-interest issue.

The Association of American Universities and the Association of American Medical Colleges are surveying their members about conflict-of-interest guidelines. The Association of American Universities found, in an early sample of its members, that many of them were making revisions.

> **"We view conflicts of interest as being potentially more serious than classical scientific misconduct."**

The American Association for the Advancement of Science is also considering a project on conflicts of interest in scientific research, and, at the request of the Department of Veterans Affairs, the National Academy of Science's Institute of Medicine is defining some conflict-of-interest issues in biomedical research and education.

In the current debate, some of the questions arising are:

- Should there be limits on how much money a university scientist should receive from a private company with products related to his research?
- Should university scientists let companies pay for their trips to scientific meetings and pay them to talk at those meetings about topics related to the company's products?
- Should scientists disclose their corporate affiliations when they are giving advice to the public?
- Should scientists who review other scientists' work for federal research agencies or for scientific journals have a financial stake in whether or not the research they are reviewing receives a grant or is published?

'They Need a Financial Reward'

The possibility that conflict-of-interest policies might be tightened is not viewed favorably in all quarters. The National Institutes of Health have received some opposition to their proposal to restrict drug researchers' financial ties. Some university administrators say it is unfair to reverse a federally supported trend toward more industrial support of research.

"Congress has passed a series of laws to encourage universities to interact with industry," says Nathan B. Dinces, the director of industrially sponsored research at Dartmouth College. "Now we have N.I.H. saying they want very limited financial involvement."

Mr. Dinces says he believes drug trials need especially close scrutiny but says he is concerned that the idea of limiting scientists' financial involvement will spread to other areas of research. "Faculty aren't always going to conduct research out of the goodness of their hearts," he says. "They need a financial reward like everyone else."

Diana M. Zuckerman, a staff member for a Congressional subcommittee that has held hearings on conflicts of interest in scientific research, says that "I've been getting tremendous flak from university administrators who say that if they have to take away the ability of faculty to earn extra money, they'll lose all of their faculty. I'm not convinced."

The subcommittee, part of the Committee on Government Operations, is planning another hearing later this spring. Ms. Zuckerman says she expects that one issue that will be raised is, Who owns the data in studies that the federal government sup-

Continued on Following Page

Boston U. Gambles On Its Big Investment in Biotechnology Company

BOSTON

Many universities dream of striking it rich with a single investment. Boston University may have tied its fate to one.

Since 1980, the university has committed nearly $50-million to become the majority owner of Seragen Inc., a biotechnology company that is developing treatments to fight leukemia and other diseases.

The university believes that its investment will one day yield substantial returns, perhaps hundreds of millions of dollars. That could do wonders for the university's endowment, which at $166-million is smaller than endowments at most of its peer institutions.

But with biotechnology, many investors have learned, there are no guarantees. The soonest Seragen expects to see profits is 1993, after marketing its first products. Until then, B.U. is prepared to spend $1-million a month just to keep the company afloat while it refines its products.

Those monthly infusions of operating funds—representing more than 2 per cent of the university's $540-million budget this year alone—could raise the university's commitment to more than $100-million before it gets a penny back.

Already the investment represents perhaps the most substantial—and most risky—single commitment ever made by a university to one fledgling company. But B.U. officials believe Seragen is a good bet.

'A Very Promising Situation'

"We see this as a very promising situation for us," says Jon Westling, B.U.'s executive vice-president. "The company is increasing in value on a daily basis."

The university was among the first to invest in Seragen when it was formed in 1980 by researchers affiliated with B.U.'s School of Medicine.

Through 1985, according to university documents, outlays to Seragen from a university venture-capital fund totaled $1.2-million.

A Norwegian drug concern took control of Seragen in 1985, but after investing $20-million it decided in 1987 to get out. So the university bought in, purchasing a majority of Seragen for $25-million and guaranteeing a $10-million loan.

The university had hoped to turn a big profit by taking the company public. But the October 1987 stock-market crash put plans for a public offering on hold.

Meanwhile, Seragen has needed cash. So, since June of last year, the university has loaned the company $12.9-million. B.U.'s total commitment thus far: $49.2-million. Its share of Seragen: 73.4 per cent.

As clinical tests of the company's first cancer treatment got under way last week, university officials were said to be angered by reports skeptical of Seragen. *Business Week* quoted one source as saying: "B.U. has got to get out of an embarrassment."

The university thinks Seragen will be worth $1-billion by 1999. A partner could help finance the company's marketing efforts, Mr. Westling says, but the university wants to retain a majority interest even if other investors come aboard. That way, the university can turn out the biggest winner—if, that is, its dream doesn't go bust.

—GILBERT FUCHSBERG

Universities Said to Go Too Fast in Search of Profits

Continued from Preceding Page

with our checkbooks. Please be available'," says Norman Brown, director of Utah's technology-transfer office. The university is holding off, pending confirmation of the discovery, but some 200 companies have contacted the university already, and preliminary licensing plans are under discussion. "The potential is enormous," Mr. Brown says.

Although the prospect of major breakthroughs and big-dollar deals has helped fuel increased interest in technology transfer, there is also growing political momentum for universities to contribute—through new companies and products—to their local economies as well as the country's competitiveness. Many states have picked their public research institutions as bases for new research parks, "incubators" for fledgling businesses, and venture-capital pools for investing in high-tech start-up companies.

Other factors are in play, too. "I don't think anybody is doing this purely for patriotic reasons," says Alistair M. Brett, director of technology transfer at Virginia Polytechnic Institute and the organizer of a conference next month on university spin-offs.

To keep their faculty members happy, many universities consider it crucial to allow them opportunities for outside activity and additional income. Encouraging spin-off companies—and sharing royalties with inventors—is one way to accomplish that. Technology transfer has also become a prime vehicle for new research dollars, as more companies agree to sponsor campus research in exchange for rights to develop whatever discoveries may emerge.

Odds Against Success

So far, corporate sponsorship of university research—which totaled about $750-million last year, about one-tenth of the federal research contribution—has far outweighed income from licensing. By some estimates, licensing income to all universities totaled about $50-million last year, less than many institutions receive from private donations each year.

One reason licensing income may never become very significant for most institutions is that most discoveries aren't profitable. Of those that are patented—and only a small share of discoveries merit patents—it is generally believed that one in 10 will make enough money to recover its filing costs. One in 100 may make between $20,000 and $50,000. Only one in 1,000 will prove a major money-maker.

Still, the odds against big successes haven't stopped universities from seeking them. Some believe, however, that expectations are too high.

"Many universities think that every invention from a faculty member is worth millions of dollars and is the appropriate basis for a spin-off company," says John P. Holloway, patent officer at the University of Colorado Foundation. "But that's just not true."

> "Would you give preference to a professor on tenure because you have stock in his company?"

E. Michael Egan, director of business development at Repligen Inc., a medium-sized biotechnology company in Cambridge, Mass., is often solicited by universities offering to license potential discoveries, but increasingly he is put off by their demands. "They all want million-dollar, up-front payments, royalties through the roof, and all sorts of research funds," he says. "Everybody wants to be the Donald Trump of licensing overnight."

What many universities new to technology transfer do not understand, Mr. Egan says, is that many companies cannot afford to pay hefty up-front licensing fees.

While some biotechnology inventions prove profitable—such as the gene-splicing technique that earns Stanford millions of dollars each year—most do not, and it often takes years of additional research costing millions of dollars just to find out.

John F. Thuente, director of patents and licensing at the University of Minnesota, says he has heard many complaints about hefty licensing requests. He sees that as a symptom of there being "500 people who didn't have a job in this field five years ago."

"Clearly a lot of people on the university side are inexperienced in this business," he says. About 10 per cent of the University of Minnesota's licensing proposals have been rejected, but it happens less frequently now that the university tries to accommodate interested companies, Mr. Thuente says. "If you're interested in getting the products of your research out, you have to have a reasonable approach to licensing."

Legal and financial risks are another growing worry for institutions increasing their technology-transfer activity.

Until now, universities have considered the legal dangers involved in commercializing technology as remote. Many institutions have assumed that their liability is limited because they often license ideas in rough or early form, distant from the refined technologies or products that companies eventually develop.

But concerns are growing that universities may be drawn into legal actions involving products based on their ideas. One reason is that more universities are seeking to commercialize products that may lead to vaccines, diagnostic tools, and other technologies with medical uses and consequences for human life.

"Generally the courts have been kind to universities, maybe because they thought universities weren't sophisticated," says Genevieve G. Stubbs, assistant general counsel for the Texas A&M University System and co-chair of a nationwide group of university lawyers examining technology transfer issues. "I think that might change."

Lawsuits Involving Patents

While no universities have been named in suits yet, many now require companies they license to carry liability insurance and to assume all risks for their products.

Still, technology transfer has forced some universities into court, to fight lawsuits involving their patents. In the last year alone, Cornell University settled in its favor two cases in which it alleged that companies had infringed on its patents.

One suit was worth plenty to Cornell. It concerned a patent on a vaccine that had earned the university $300,000 in licensing fees. The settlement forced a company to take out a license on the vaccine. "You litigate to make money, not to make a point," says H. Walter Haeussler, director of patents and technology marketing at Cornell.

To many, worries about the bottom line are less important than concerns about potential ethical problems associated with commercial arrangements on their campuses.

The most basic fears are that the potential for profit will skew research, compromise teaching, and influence hiring decisions. Most institutions have developed guidelines to guard against such possibilities, but many are reviewing their policies to insure that they are adequate.

One is the University of Illinois, where officials spent two years negotiating agreements to license computer technology developed in a university laboratory to a company run by the lab's director.

After the 1985 deal was signed, questions arose about accounting procedures and other issues related to laboratory staff members' working at and holding a stake in the company. A university investigation followed, as did two lawsuits from two former lab workers who charged, among other things, that university funds had been misused to help promote and develop the private company.

Those named in the suit have denied any illegal activity, as has the university. But after a review of the original agreements with the company, "we did conclude that our policies and practices were not sufficient to preclude conflicts of interest or the appearances of conflicts of interest," says Judith Rowan, associate chancellor for news and public affairs.

"We left holes a truck could go through," says Ms. Gunsalus, the assistant vice-chancellor for research who helped negotiate the agreements. "If we were more experienced, we could have done a better job."

> "Many universities think that every invention from a faculty member is worth millions."

While the university's conflict-of-interest policies were once general and ambiguous, Ms. Gunsalus says, now they are more explicit and direct. The university also requires all academic staff members to report all non-university income-producing business activities and potential conflicts.

"You can't do anything about conflicts until they're disclosed," Ms. Gunsalus says.

Stephen H. Atkinson, director of technology licensing at Harvard Medical School, says most conflict policies "need to be more clearly written. Most are short on specifics, and very impressionistic."

Rather than adopt across-the-board guidelines to anticipate most contingencies, some institutions handle the potential for conflicts on a case-by-case basis.

The University of Utah has had several sticky situations, Mr. Brown says, but that hasn't slowed licensing and spin-off activity, which has increased significantly in the past three years.

"We're keeping our fingers crossed," he says. "We understand that nothing's perfect."

Stock in Start-Up Companies

Concerns about potential conflicts have also prompted increased worry about the practice of universities' accepting stock in start-up companies in lieu of or in addition to cash royalties.

Stanford, which led all universities with $9.2-million in licensing income last year, refuses to accept stock in any company in which one of its professors has a stake. "The primary concern is conflict," says Katharine Ku, the university's associate director of licensing. "Would you give preference to a professor in a tenure decision because you have stock in his company?"

Harvard shuns all equity holdings. "If you enter into business with your faculty it represents an unacceptable conflict," says Mr. Atkinson.

Some have questioned whether Harvard will be able to avoid conflicts once a $35-million fund it is organizing to invest in profitable discoveries gets under way, but Mr. Atkinson insists the fund was designed to insure against ethical problems. It will be independent of university control, will involve no university money, and will be subject to review if questions arise.

M.I.T. has no plans to organize a venture-capital pool for investments in its professors' companies, but has no aversion to accepting stock in lieu of cash as part of its licensing deals. To avoid conflicts, however, M.I.T. will not accept research funds from any company in which either the institute or one its faculty members holds stock.

Says John T. Preston, M.I.T.'s director of technology licensing: "We don't want to see research biased by commercial reward."

Scientists Grapple With Conflicts of Interest

Continued from Preceding Page

ports—the universities, the researchers, or the federal government?

The House Energy and Commerce Committee, which wields authority over the National Institutes of Health, has also been investigating some instances of conflict of interest in scientific research.

A member of the committee staff says: "We view conflicts of interest as being potentially more serious than classical scientific misconduct."

Fraud legislation being drafted by the committee may require the Secretary of Health and Human Services to draw up conflict-of-interest guidelines for federally supported research, the staff member says.

Many Dual Affiliations Found

Documenting the extent of scientific conflicts of interests may be somewhat easier than documenting the extent of scientific fraud. Sheldon Krimsky, an associate professor of urban and environmental policy at Tufts University, says he has spent four years documenting the corporate affiliations of biomedical researchers.

While he is reluctant to talk about his final results because he has not published them, he says: "In prominent institutions—the ones seen as having the best biomedical researchers—the number of active scientists with dual affiliations is quite large."

One remedy to the thorny issues posed by financial conflicts of interest has been suggested by Arnold S. Relman, editor of the *New England Journal of Medicine*, which is one of the few scientific journals to require researchers to disclose their financial stake in research. Dr. Relman has suggested that medical researchers get a one-time payment from drug companies for successful research, but that continuing payments be prohibited.

"If down the road a product goes sour," says Dr. Relman, "or doesn't turn out to be as good as a new product, that expert has to be counted on to tell the truth to the public. If he's sending his kids to private school on the royalties, he might not be objective."

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UPDATE ON MINORITY GROUPS

'Life Gets Better' Program; 'Multicultural Awareness' at Temple U.; More

Florida A&M University promises top black high-school students that "life gets better" if they study hard and excel in science, mathematics, and engineering courses.

It keeps its promise by handing them airplane tickets the day after they graduate from high school. The tickets take the students to some of America's major corporations, which provide them with internships and four-year scholarships.

Forty-seven students are now participating in the university's program, "Life Gets Better."

Says Florida A&M's president, Frederick S. Humphries: "I wanted to create a scholarship program that would make it instantly rewarding for those students who had paid attention and achieved in science and engineering courses."

Under the program, companies that agree to sponsor students pay all of their college costs.

Students also spend four consecutive summers at the companies on paid internships.

A wide range of businesses are participating, including Honeywell Inc., the General Motors Corporation, and the Monsanto Corporation, university officials said.

While the program started out emphasizing science and engineering, students are now receiving scholarships to pursue other subjects as well, including accounting, computer science, economics, and pharmacology.

■

Fifteen institutions attracted nearly half of the 742 freshmen who won grants in 1988 from the National Achievement Scholarship Program for Outstanding Negro Students.

A report from the National Merit Scholarship Corporation, which sponsors the annual competition, shows that a total of 150 colleges enrolled the freshman scholars—309 students at 73 public institutions and 433 at 77 private institutions.

A ranking of colleges and universities that enrolled the greatest number of freshman achievement scholars was compiled by *The Chronicle* using a list from the scholarship corporation.

The following 15 institutions enrolled the greatest numbers in 1988:

Harvard U., 69
Stanford U., 42
U. of Texas at Austin, 30
Yale U., 22
Florida A&M U., 21
Massachusetts Institute of Technology, 20
Princeton U., 20
Duke U., 18
Northwestern U., 18
Georgia Institute of Technology, 17
Howard U., 17
U. of Illinois at Urbana-Champaign, 17
U. of Florida, 16
Brown U., 15
U. of Alabama, 15

■

The federal Bureau of Land Management hopes to hire more blacks, Hispanics, and other members of minority groups with the help of Wayne County Community College and the University of Michigan.

The bureau—part of the U.S. Department of the Interior—began working with the two institutions during the winter on a program to increase the number of minority students who earn degrees in natural resources and to train them for positions as ecologists, geologists, park managers, and range conservationists, among others.

The first class of the new program was convened this winter with about 35 students, said Cassell A. Lawson, executive dean at the community college's downtown campus.

At Wayne, students pursue an associate-degree program that features special courses on natural resources taught by bureau professionals.

Eight bureau experts are taking turns teaching a course this semester called "Public Policy and Federal Land Use."

Students who successfully complete the associate-degree program with at least a B average are guaranteed admission to the University of Michigan's bachelor's program in natural resources, said Harrison L. Morton, a professor in the university's school of natural resources.

Participating students will be brought to Ann Arbor to become familiar with the campus and will be counseled on the careers and summer jobs available in natural resources, he said.

"We can't promise them jobs, but the intent is to tap them when they graduate from Michigan," said Ernie D. Jones, a bureau program manager who works with historically black colleges and universities.

"The bureau does not have a representation of minorities among its professionals," he said. "This is one way the bureau is going to start growing its own."

■

Student-government leaders at Temple University organized a week of activities to raise "multicultural awareness" on the campus and reduce racial tensions.

Billed as an "anti-racism" campaign, the event was held last month and featured rallies, panel discussions, films, and a cultural fair.

Racial tensions on the campus were heightened earlier this year by the formation of a "white pride" group calling itself the "White Student Union."

The group seeks to promote white culture and abolish affirmative action. The group's existence, along with recent publicity about racist incidents on the nation's college campuses, prompted Temple student leaders to act.

"We decided it's time for student leaders to stop being apathetic about these racial tensions," said Glenn M. Sapadin, press secretary of Temple's student government. "It's time to be pro-active, and not reactive."

Most of Temple's student organizations participated in the event. "We wanted to get them all to share with the Temple community certain aspects of their cultures," Mr. Sapadin said. "It's meant to bring us all together." —DENISE K. MAGNER

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News Summary

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A handful of researchers in a fledgling discipline are studying the theological themes and symbols in popular music: Page A4.

A debate at a meeting of historians focused on the idea of American exceptionalism and its influence on scholarship: Page A5.

After a decade in the "doldrums" for faculty governance, many professors are starting to give it a fresh look: Page A17.

The president of the A.A.U.P. squared off with a critic of the professoriate in a debate over a controversial book: Page A17.

Supporters of research partnerships between industry and academe are urging the design of a federal technology policy to help American companies compete in international trade: Page A21.

A California court upheld a ruling that bars community colleges from selling books that are unrelated to courses: Page A29.

Law-school students nationwide are prodding their institutions to hire more women and minority-group members as professors: Page A32.

Two sports officials at the U. of Tennessee resigned from a club after a report that a black coach would not be allowed to join: Page A33.

China announced a new delay in setting firm policy guidelines for the country's troubled education system: Page A37.

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'VERDICT IS STILL OUT'

New Chemical Experiments Partly Confirm the Possibility of Achieving Fusion in a Flask, but Skepticism Continues

By KIM A. McDONALD

DALLAS

Several groups of scientists reported last week that they had at least partially confirmed the astonishing results of two chemists who claimed to have sustained a nuclear-fusion reaction in a flask.

The new findings raised the possibility that the mysterious phenomenon, widely thought impossible by scientists a month ago, could in fact be real.

But chemists who gathered here last week to discuss the experiments remained puzzled over how the energy-generating process could possibly be produced, conceding that the results thus far had generated more confusion than concrete examples of fusion.

"It is unprecedented to see a chemical reaction affecting something nuclear," said Allen J. Bard, director of the laboratory of electrochemistry at the University of Texas at Austin. "I think the verdict is still out."

Because most of the chemists working feverishly to duplicate the phenomenon have seen nothing at all, skepticism abounds within the scientific community over the new reports. Adding to the confusion is the fact that whatever is producing the unusual reaction is unlike any nuclear or chemical phenomenon scientists have seen.

But efforts to explain the puzzle of fusion-in-a-flask and the

Continued on Page A10

B. Stanley Pons, as he told chemists last week in Dallas he was convinced that nuclear fusion had been produced.

PHOTOGRAPH FOR THE CHRONICLE BY JAMES KNOWLES, PICTURE GROUP

High Hopes for Bush and Cavazos Have Evaporated, Many Say

By ROBIN WILSON

WASHINGTON

A growing number of education officials and politicians say their high hopes for educational improvements under President Bush and Education Secretary Lauro F. Cavazos have evaporated.

They characterize the new Administration's education plans as largely symbolic and shortsighted, they question whether Mr. Cavazos is sufficiently knowledgeable and politically astute for the job, and they worry that the President has squandered what they believed would be the best opportunity in a decade to re-examine the federal role in education.

"George Bush has wanted to be the 'Education President,' but in so doing he's really wanted a kind of stable, not-many-changes, let's-create-a-positive-climate-around-education approach," says Michael D. Edwards, manager of Congressional relations for the National Education Association.

Bipartisan Criticism

Most of the criticism of the Administration's record on education centers on Mr. Cavazos, who was appointed by President Reagan in September and was retained by Mr. Bush. Although many educators say the Secretary has been gracious, they also say he ducks controversy rather than confronting pressing problems in education.

The criticism is bipartisan and comes even from within the Administration itself. One Administration official describes Mr. Cavazos as "a nice, kind fellow," but adds that under his leadership, the department is "fumbling, bumbling, and blundering."

Observers say other shortcomings have tarnished the Administration's record:

- Of the 15 top positions in the Educa-

Continued on Page A24

U. of Iowa Chief Sparks a Firestorm With Challenge to NCAA to Bar Freshmen From Sports Within 3 Years

By DOUGLAS LEDERMAN

The president of the University of Iowa has vowed that the university will unilaterally bar freshmen from playing intercollegiate sports if a similar step is not taken at the national or regional level within three years. The declaration, by President Hunter R. Rawlings, III, was condemned by Iowa's Governor, and the university's football coach threatened to resign.

Mr. Rawlings, who first commented about freshman ineligibility in the Des Moines *Register*, said in an interview last week that in speaking out, he was seeking to focus attention not so much on the "hypothetical of what we *might* do, as on working hard to stimulate change nationally." He said he believed presidents must be willing to take strong stands if big-time college sports are to be reformed.

But he may not have anticipated the firestorm that would erupt from his promise of unilateral action. Iowa's Governor, Terry E. Branstad, the Iowa football coach, Hayden Fry, and some supporters of the university's teams criticized Mr. Rawlings's stand because they feared that acting alone would cripple the university's ability to compete in sports at the national level. Coach Fry said he would resign if Mr. Rawlings did not back away from his vow.

In a statement to the Board of Regents last week, Mr. Rawlings said he did not

Continued on Page A34

National U. of El Salvador Endures Bloody Civil War

The strife- and disaster-torn national University of El Salvador faces a hostile new government: Page A37.

MARGINALIA

Ad in the *Daily Iowan:*

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Aren't you being a bit presumptuous?

■

Here are more responses to a reader's question, "If university departments were to start radio stations, what would their call letters be?"

From Nancy B. DuMont, of the University System of New Hampshire ("While I should be spending time on far weightier issues, I could not help but respond"):

Career services: WJOB
Bursar (collections) WDUE
Counseling: WBOK
Graduate admissions: WGRE
Health services: WILL
Animal sciences: WMOO
Athletics: WJOK
Chapel: WGOD

And from Phyllis M. Ford, of Michigan State University:

Optometry: KICU
Entomology: WCDB
Physical plant: KNRG

■

Notice in a University of Iowa job bulletin:

"COUNSELORS, BA degree for day a.m. and p.m. shifts, AA degree or junior standing required or experience with emotionally disturbed children for 11:00 p.m. to 7:30 a.m. shifts only. Salary range: $13,872-$167,872".

That's the nighttime differential, probably.

■

From *System,* a magazine from the University System of Georgia:

"What do you do when you throw a little party for 400 of your nearest and dearest friends—only to have twice that number actually show up?

"First, you say a prayer. You pray that the food and drink hold out. . . .

"The occasion was Georgia Southern College's fourth annual Wild Game Supper, an event much anticipated by the state's lawmakers, higher educators and other notables.

"Fortunately, the food did hold out, thanks to the earlier enterprise of some important people. U. S. Rep. Lindsay Thomas and a delegation of Savannah businessmen provided four wild hogs that yielded 400 pounds of beef."

Never underestimate the ingenuity of a hungry Congressman.

■

Headline in the Duke University *Chronicle:*

INDIAN ACTIVIST JACOBS TO BE EXPEDITED TO NORTH CAROLINA

By airline or Amtrak? —C.G.

In Brief

Improved Public-Service Training Sought by Bok

The president of Harvard University, Derek Bok, last week called for new approaches to the education of public servants that would help "create a quality of government equal to the challenges we face."

"The principal challenge in the period ahead," Mr. Bok said in his annual report to the university's Board of Overseers, "will be to add those forms of education that will help government officials move beyond being mere bureaucrats and technicians to become the kinds of human beings to whom we would willingly entrust decisions that affect our lives."

To that end, he called on universities and, in particular, Harvard's John F. Kennedy School of Government, to concentrate on teaching students about the humane and moral perspectives of policymaking.

1,111 Research Animals Abducted by Activists

Members of an animal-rights group abducted 1,111 animals and caused property damage worth $115,000 at four research buildings at the University of Arizona this month.

Members of the Animal Liberation Front said in a statement that they had set fire to one of the three laboratories they had broken into. They also said they had set fire to the university's animal-research office. The group said the animals they abducted would be placed in homes.

Michael Cusanovich, vice-president for research at the university, said animal research there was conducted in strict compliance with federal laws and regulations and with the regulations of the American Association for Accreditation of Laboratory Animal Care.

The Animal Liberation Front statement said: "The quality or cleanliness of the cages is not the issue: holding animals against their will for our own poisoned curiosity and profit must end."

Senator Howell Heflin, the Alabama Democrat who has introduced a bill to make it a federal crime to vandalize animal-research laboratories, toured the university's damaged buildings.

Theater Festival Picks 5 Winners

WASHINGTON

The five winners of this year's American College Theater Festival competition are being staged here this week at the John F. Kennedy Center for the Performing Arts.

Two of the plays are new works written by students, while the others are campus productions of existing plays. More than 800 productions were entered in the competition.

The two original productions are *Blue Collar Blues,* by Denise Kay Dillard of the University of Minnesota at Duluth, and *Oscar,* by Brian Nissen of the California Institute of the Arts. *Blue Collar Blues* chronicles the dismantling of a factory town, while *Oscar* is a memoir of life in Berlin during the Nazi era.

The other winners are:

- Illinois State University's production of *A Raisin In The Sun,* by Lorraine Hansberry.
- Louisiana State University's production of *Fool for Love,* by Sam Shepard.
- The University of Alaska's production of *Tracers,* a play written by a group of Vietnam veterans.

Dance at Florida A&M U. Ends in Fights, Gunfire

Fights that broke out during a fraternity-sponsored dance at Florida A&M University ended in gunfire outside a campus gymnasium. Fifteen people were arrested.

One university student was among those arrested by police, who quelled the disturbances, said Eddie Jackson, a Florida A&M spokesman.

Mr. Jackson said the 14 nonstudents arrested were part of a rowdy crowd kept outside the dance after the gymnasium had reached its capacity of 3,500 people. One campus police officer was injured in the fights, which spread inside the building when police called an end to the dance.

Police recovered three guns from those arrested, Mr. Jackson said. Shots were fired in the air and into a police car during the unrest, he said.

Frederick S. Humphries, president of the university, has banned all fraternity and sorority parties for the rest of the semester, Mr. Jackson said. The president will also appoint a committee to make recommendations about the future of the Greek system.

Police Say Texas Student Died in Cult Ritual

The body of a premedical student from the University of Texas at Austin who disappeared while on spring break last month was discovered in a mass grave last week near the Mexican border town of Matamoros.

Authorities said the student, Mark Kilroy, had been murdered by drug dealers taking part in a series of ritualistic killings.

Mr. Kilroy disappeared after becoming separated from three college friends with whom he had gone to Matamoros for the evening. Investigators believe his killers were ordered to find a student on spring break and to bring him to a ranch outside of Matamoros so he could be sacrificed.

As of late last week, five men had confessed to taking part in the killings, saying the satanic rituals were intended to protect them from authorities. Investigators were still searching for the leader of the cult.

8 Leave Chicago College After Investigation

One lecturer has been fired and seven tenured professors have voluntarily left their posts after an investigation into grading improprieties at Malcolm X College of the City Colleges of Chicago.

An eighth professor has been suspended for four weeks as a result of the investigation, conducted by the college system's central office.

Helene Hartman, vice-chancellor for external affairs for the system, said the faculty members had been charged with violating administrative practices. She said "operatives" had registered for classes at Malcolm X and had received grades—some of them A's—even though they never attended classes.

Ms. Hartman said investigators had not determined a motive for the professors' actions. She said federal prosecutors in Chicago had subpoenaed investigators' records for use in possible criminal investigations.

Kansas President Quits in Wake of Allegations

The president of Dodge City Community College has resigned after being suspended for alleged misuse of college expense accounts.

Gay Dahn, president of the Kansas college since 1984, said he would terminate his contract on June 30 and would reimburse the college for $477 in gifts he bought for consultants to the college.

Mr. Dahn, who maintained the gifts were proper because they had been given in lieu of paid

Judge Upholds Stanford's Dismissal of Graduate Student

SAN FRANCISCO

A judge on the San Francisco Superior Court has decided that Stanford University used adequate procedures when it dismissed Steven W. Mosher from its doctoral program in anthropology in 1983.

The judge did not rule, however, on a claim by Mr. Mosher that the university defamed him after dismissing him for "illegal and seriously unethical conduct" during anthropological field work in China in 1979-80.

As a Stanford graduate student, Mr. Mosher conducted research for nine months in a farming village near Guangzhou (Canton). During and after his stay, Chinese officials complained to Stanford that Mr. Mosher had, among other things, made use of classified documents, brought a van and a research assistant into the country without authorization, and traveled without permission in a remote region of the country that was off limits to unauthorized foreign visitors.

After he left China in June 1980, Mr. Mosher further angered the Chinese government when he published an article critical of the country's population-control policy, including the practice of forced abortions.

JOHN C. PHILLIPS

Steven W. Mosher: He sued Stanford in 1986.

Action Upheld 3 Times

His dismissal from Stanford's anthropology program in February 1983 was upheld through three appeals, including a final one to Stanford's president, Donald Kennedy.

Mr. Kennedy in fact cleared Mr. Mosher of many of the charges against him, and acknowledged that others had been based on insufficient evidence. But he upheld the dismissal nonetheless, accusing Mr. Mosher of "deliberate disregard for the host country" and a "serious lack of candor" in his dealings with the university and with Chinese officials.

Mr. Mosher sued the university in 1986 for violation of free speech, defamation, and breach of contract, among other things. A federal district court last year dismissed Mr. Mosher's claim that his constitutional right of free speech had been abridged and sent the case back to state court.

The Superior Court ruled earlier this month that, since Stanford's adjudication process had been appropriate, the case need not be re-examined. The court dismissed all the claims against the university except defamation, which will be decided at a later date.

Mr. Mosher, a resident scholar at the Heritage Foundation in Washington, could not be reached for comment.

—ELLEN K. COUGHLIN

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Law-School Students Protest Scarcity of Female and Minority Professors

By COURTNEY LEATHERMAN

Law-school students around the country are uniting to prod their institutions to hire more women and minority-group members as professors.

As part of the effort, hundreds of law-school students on more than 20 campuses took part in a "Nationwide Law Student Strike" this month, demonstrating and boycotting classes. Participants said they were protesting a lack of ethnic and racial diversity in law-school faculties.

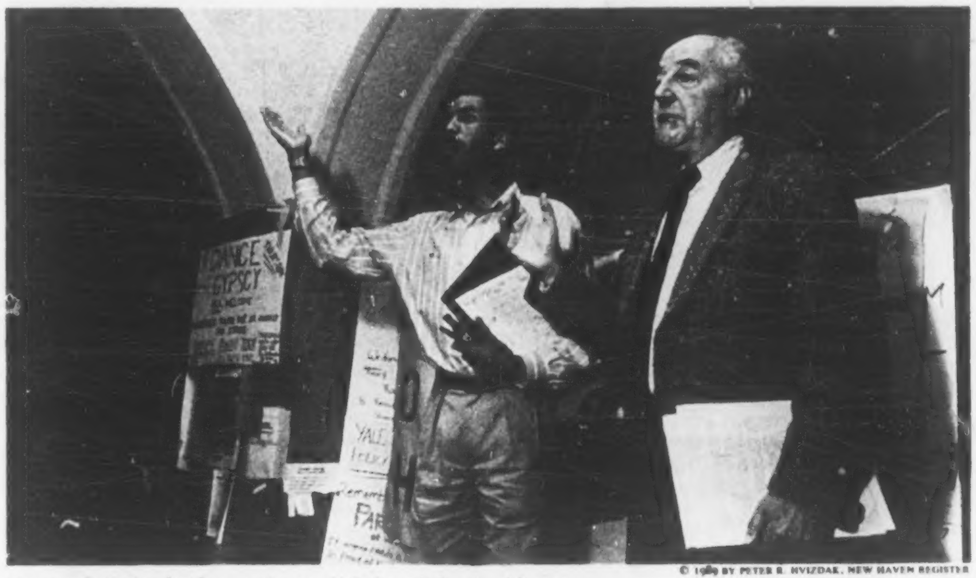
Administrators cited stepped-up efforts to recruit minority faculty members as evidence that they share the students' concerns. But they said minority professors were still difficult to find.

Role as Mentors

The students said that law professors who are female, black, Hispanic, Asian-American, or American Indian served as mentors to minority students and brought first-hand experience with racial and ethnic issues to the classroom. Until law-school faculties have more minority members, the students added, administrators will continue to find it difficult to recruit minority students.

The students also said if they were not exposed to professors from various racial backgrounds, the shortage of lawyers serving the growing U.S. minority population would become more serious.

Said Julie Derwinski, a second-year law student at the University of California at Berkeley: "Professors teach what they want to teach. Consequently, because faculties are not diverse, they're leading us down the corporate path."



© 1989 BY PETER R. HVIZDAK, NEW HAVEN REGISTER

Keenan R. Keller (left), a student at Yale Law School, addresses demonstrators as the school's dean, Guido Calabresi, stands by.

Students who do hope to serve minority groups said the absence of minority professors hurt their ability to prepare for their careers.

Said Loretta P. Martinez, a first-year law student at Harvard University: "Hispanics have traditionally sought to teach in areas ignored by the legal profession, such as immigration law and poverty law."

'A Gap in the Curriculum'

She said that no Hispanic had ever been granted tenure by Harvard's law school. "Their absence here creates a gap in the curriculum," she said. "Therefore, the needs of the community are going to be ill served and we as students will be ill prepared to serve our communities."

Ms. Martinez was among 125 Harvard students who staged a "study-in" in an administration building, protesting what they called Harvard's poor efforts to recruit members of minority groups, particularly Hispanics. Of Harvard's 61 tenured professors, six are female and three are black. Two other black professors are on tenure track.

James Vorenberg, Harvard's law dean, said the university had not been lax in its efforts to hire minority and female faculty members.

The strike was promoted by student members of the Coalition for a Diverse Faculty at Berkeley, where more than 200 protesters gathered and most students boycotted classes. Forty-six students were arrested on suspicion of trespassing after they occupied administrative offices.

"We showed the faculty and administration we were concerned with these issues and we want changes," said Ms. Derwinski, a member of the coalition. "We don't feel the process we had used before—that is, dialogue—had been effective."

Activities to mark the strike varied from campus to campus. At the University of Chicago, for instance, 20 law students participated in an "Awareness Day" discussion. At Yale University, 200 law students boycotted classes and jammed an administration building. At least five Yale faculty members canceled classes to support the effort.

Yale administrators said nine of the 14 tenure-track faculty members hired in the last 10 years are women or minority-group members, as are five of the law school's 53 tenured professors.

Recruiting Called Difficult

Most law-school administrators acknowledged that the number of minority faculty members was too low. But recruiting professors from minority groups for tenure-track positions is difficult, they said, because so few minority-group members are "in the pipeline."

Said M. Michael Sharlot, associate dean for academic affairs at the University of Texas School of Law: "The pool of applicants to no degree resembles the demographics of the United States. You have a large number of schools each seeking qualified minority and female faculty members."

But Michael A. Olivas, a Mexican-American professor of law at the University of Houston Law Center, said he did not buy arguments that minority faculty members are in short supply.

"It's simply a crock," he said at a rally at the University of Texas on the day of the strike. "It's simply inconceivable to me that you can't find Hispanics to go into teaching."

However difficult recruiting minority professors may be, students and some administrators agreed that law schools must offer racially and ethnically diverse faculties if they hope to attract minority students to their institutions and the profession.

Said James M. Douglas, chairman of the minority-affairs committee of the Law School Admissions Council: "There is a direct relationship between law schools' abilities to attract minority students and their abilities to attract minority faculty members. I don't think a law school without a lot of minority faculty members can ever hope to have a lot of minority students." Mr. Douglas is dean of the law school at Texas Southern University.

Plea to Maintain Pressure

Officials of the Association of American Law Schools said that 861 prospective faculty members had filed applications with the organization this year—618 of them white, 51 of them black, and 21 of them Hispanic. The rest were members of other minority groups or did not state their racial background. The applicants included 194 women, 590 men, and 77 people who did not state their sex.

The protesters said they would continue hammering at the issue. "History has shown that minority and women hires only occur when student protests peak," said Steven C. Gonzales, a first-year law student at Berkeley. "If we can't maintain student pressure, we won't maintain the focus on this issue."

Katherine S. Mangan contributed to this article.

Small Percentage of Disabled Youths Enroll in College, Study Finds

By JEAN EVANGELAUF

SAN FRANCISCO

Young people with disabilities are far less likely to enroll in postsecondary institutions than are those without handicaps, according to a report of a national survey.

That finding should merit "serious and immediate" attention by policymakers because disabled people who do not pursue higher education may have difficulty making "meaningful connections in the world of work or independent living," said Paul M. Butler-Nalin, a policy analyst at the research and consulting company that conducted the study, SRI International, and one of the authors of the report.

Nationally, about 56 per cent of all young people attend some type of postsecondary institution within a few years after leaving high school. Among the disabled, however, only about 15 per cent of high-school graduates and dropouts enroll in a vocational program or in a two-year or four-year college, according to the report.

Not a Single Group

The postsecondary-education participation rate of the handicapped varies by disability. "It's really misleading to talk about youth with disabilities as one group," said Mr. Butler-Nalin. Those with vision, hearing, or speech impairments are the most likely to continue their education, he said, while those with multiple handicaps are the least likely to go on.

In exploring factors associated with a person's decision to enroll in a postsecondary institution, the researchers found that the people most likely to attend had graduated from high school, had not exhibited disciplinary problems in school, and had participated in group activities.

Educators should be aware of those factors to identify "at risk" students, Mr. Butler-Nalin said. "It's particularly important for these special-education kids, because postsecondary-education institutions are where many of them can get ability- and disability-specific training or additional support.

"If they don't do well in high school, they will suffer many of the same consequences that non-disabled youths suffer, but they've got one strike against them," he continued.

An estimated 10 per cent of the school-age population has a disability, he said.

Mr. Butler-Nalin presented the findings here last month at the annual meeting of the American Educational Research Association.

The report is based on data from the National Longitudinal Transition Study of Special Education Students, sponsored by the U.S. Department of Education and conducted by SRI International. The study has followed the progress of about 8,000 people aged 13 to 23 who received special-education services in 1985-86.

The information was obtained from interviews with the parents and teachers of the disabled students and from a review of students' school records.

Figures May Be Underestimated

The findings on postsecondary participation are based on records of 2,437 people who left high school in 1985-86 and 1986-87. The figures include those who took at least one course at a postsecondary institution from the time they left high school through the summer of 1987.

The researchers cautioned that the figures may somewhat underestimate participation because the study counted as non-participants those leaving high school in the spring of 1987 who planned to continue their education in the fall of 1987.

Along with Mr. Butler-Nalin, the authors of the survey report were Camille Marder and Debra M. Shaver, both SRI researchers.

Participation Rate of Disabled Students In Colleges and Vocational Schools

	Number of respondents	All post-secondary	Four-year colleges	Two-year colleges	Vocational schools
Learning disabled	421	16.0%	1.6%	4.9%	11.1%
Emotionally disturbed	265	15.6	0.8	4.5	13.0
Mentally retarded	339	8.8	0.3	1.1	8.2
Speech impaired	176	28.7	5.2	15.5	11.1
Visually impaired	228	31.0	15.2	9.3	8.3
Deaf	296	34.9	9.5	14.5	12.6
Hard of hearing	217	26.0	4.8	13.3	9.1
Orthopedically impaired	208	19.9	4.4	9.1	6.8
Other health impaired	126	25.3	6.1	11.0	10.2
Multiply handicapped	136	4.2	0.0	2.4	1.1
Deaf and blind	136	9.6	0.0	0.0	10.0
Total	2,437	15.0	1.8	4.5	10.4

Note: The statistics are based on data from the federally sponsored National Longitudinal Transition Study of Special Education Students. They cover 2,437 disabled people who either graduated from high school or dropped out of high school in 1985-86 and 1986-87. The figures include those who enrolled in a postsecondary institution on a part-time or full-time basis for any period from the time they left school through the summer of 1987. A student may be counted in more than one type of institution.

SOURCE: SRI INTERNATIONAL

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News Summary

Articles on inside pages

The massive oil spill in Alaska may be affecting marine life there less than some environmentalists have predicted: Page A4.

The launch of a Venus probe may signal the beginning of a "golden age" for space science: Page A5.

Teaching and learning are the primary concerns of colleges and universities, and they need to acknowledge that fact, according to a panel of education leaders: Page A13.

Universities are not aggressively overseeing or enforcing policies that govern faculty conflict of interest, a new report says: Page A13.

A prominent nuclear physicist at Yale University is President Bush's choice for the post of science adviser: Page A17.

The debate about cultural diversity in college curricula is posing new questions for foundations that support higher education: Page A25.

A picture of corruption run rampant in many athletics departments could be the lasting legacy of the trial of two sports agents convicted of defrauding universities: Page A34.

Massive student demonstrations following the sudden death of a popular former chief of the Chinese Communist Party took Beijing by storm last week: Page A35.

A deflant student boycott at South Africa's University of the North has been broken by the rector of the black institution: Page A35.

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Blacks and Whites on the Campuses: Behind Ugly Racist Incidents, Student Isolation and Insensitivity

By DENISE K. MAGNER

ALMOST 30 YEARS after the civil-rights movement made improved race relations a top priority for higher education, ugly and embarrassing incidents between white and black students continue to plague colleges and universities across the country.

Hundreds of institutions of all sizes have been affected—some by brawls, others by racist fliers or graffiti, still others by fraternity parties with ghetto themes. Many administrators and scholars who have studied the incidents have concluded that they are not simply isolated and extremist acts, but that they reflect a disturbing pattern.

While the number of overtly racist white students who commit such acts may be small, those who have studied them say, the indifference of many other whites creates an atmosphere in which racist acts are tolerated. Indifference also exacerbates the feelings of isolation expressed by blacks on predominantly white campuses.

It is hardly unusual to find apathy among college students on controversial issues. But scholars and administrators have identi-

Continued on Page A28

ANGUS PAUL

> "Blacks look around and see little has happened in terms of their numbers on campus. Many whites, on the other hand, feel a lot has been done."
> *—Nathan Glazer, Harvard U.*

U. OF MASS

> "Most of the students these days grew up with Reagan. They haven't seen leaders forcefully assert that racism is a disease that will not be tolerated."
> *—James E. Blackwell, U. of Mass. at Boston*

Reports from four campuses begin on Page A28

Faculty Salaries Rise 5.8 Pct., Outpacing Inflation Rate Again

For 8th year in row, increase tops living costs; average pay $39,410

By DEBRA E. BLUM

WASHINGTON

College professors are earning an average of $39,410 this year, 5.8 per cent more than in 1987-88, according to an annual survey conducted for the American Association of University Professors. The latest figures mark the eighth consecutive year in which faculty salaries have outpaced the rate of inflation.

Despite the increase—which is almost one percentage point higher than last year's—some people in academe are not satisfied.

"I'm disappointed, and I think the small gains in faculty salaries are also going to come as a surprise to parents who are paying higher tuition bills and policymakers who are struggling to get larger budgets," said Hirschel Kasper, a professor of economics at Oberlin College and chairman of the A.A.U.P. committee that conducted the study.

Average salaries for faculty members at all ranks at public and private institutions appear in a Fact File on Page A14.

The average salary increase slightly exceeds the 5.3-per-cent 1988-89 raise recently reported for college and university administrators by the College and University Personnel Association (*The Chronicle*, February 15). Administrators' salaries had rebounded from the previous year when the average increase was below the national inflation rate.

Data From 1,900 Institutions

The faculty study, which was based on data collected from more than 1,900 institutions, examined salaries in effect at the start of the current academic year. It reported the following average salaries for all

Continued on Page A14

Some Controls of Polish Universities Eased, but Academics Seek Further Changes

WARSAW

A landmark agreement for political liberalization in Poland has already eased some government controls of universities, but it has yet to achieve the chief goals of Polish academics—abolition of a repressive higher-education law and the restoration of academic freedoms that were won in 1980-81 before the imposition of martial law.

Many faculty members at the country's universities have thus reacted with less than complete enthusiasm to the pact. In it, the government and opposition leaders agreed to legalize the Solidarity trade union and create a more democratic political system.

Under the agreement, a new higher-education law has been promised for the fall of 1990. In the meantime, some of the most restrictive aspects of the current law, which took effect in 1985, are being suspended temporarily.

Less of a Gain Than Hoped For

Janusz Grzelak, a Solidarity representative who participated in negotiations on education and science, called the agreement a "real gain" when compared with expectations of a year ago. But he said the outcome fell short of what academics had been hoping for as little as two months ago.

Nevertheless, the interim amendments will end some government controls over universities. For example, the Minister of National Education will no longer have the right to veto the granting of Ph.D.'s and other advanced degrees, and university rectors can now authorize faculty travel to overseas conferences without getting government approval.

Moreover, university senates and aca-

Continued on Page A38

Education Dept. Reverses Itself on Drug-Policy Statement

Education Department officials have disavowed an earlier statement that they would conduct campus checks of aid recipients for drug use: A17.

MARGINALIA

From *Spell / binder*, which bills itself as "the SPELL newsletter":

"TYPOGRAPHICAL ERRORS MAY be expected to occur in SPELL / BINDER from time to time. We do our best to eliminate them, truly we do. Please don't waste Goof Cards by sending them to us on such trivial errors. We urge that cards *not* be send on typos found in any publication unless the result is clearly a representation of ignorance."

Sometimes it's hard to tell.

■

A reader found these "reportable injuries" on the Form 200 that the University of Alaska sent not long ago to the Occupational Safety and Health Administration in the U.S. Department of Labor:

"Left pectoral muscle injured lifting briefcase."

"Time / date stamp machine fell on head."

"Fell down stairs and injured back during arrest."

"Twisted lower back and buttocks while catching book."

"Walking down hall and knee popped out."

"Cut hand entering patient's bedroom."

"Musk ox butted claimant in place."

■

The same reader reports the following items on the university's year-end unclaimed-property inventory report:

Tenderometer, used;
Cluster Buster, Frozen Pea;
Skull, Plain Demonstration;
Shotgun, 12 GA Riot, Smith & Wesson;
Safe, 902 lbs, 20x20x20;
Brain, Human, Transverse sec 5 pc
2 cash registers
Safety storage cabinet
Model doll, teaching aid

■

Some weeks ago a correspondent asked, If college and university departments had their own radio stations, what would their call letters be? Since then, we've been running suggestions from readers. These are from Mary Quinlivan of the University of Wisconsin at Whitewater:

Biblical studies: WRIT
Biology: WDNA
Physical education: WGYM
History: WWAS
Geology: WROK
Choral studies: WHMM
Accounting: WWAD
Ethnic studies: WUNI
Communication: WFYI
Epistemology: KNOW
Military science: WZAP

"I'm glad my *Chronicle* arrived before I left on vacation," Ms. Quinlivan writes, "for I was thus able to play with call letters on the plane. Perhaps I should have read the airline magazine."

—C.G.

In Brief

Campus Ministry Denied to Unification Church

George Mason University last week rejected an application by the Rev. Sun Myung Moon's Unification Church to establish a recognized ministry on the campus.

The decision was made on the grounds that the church submitted inaccurate and misleading information about its status at other institutions, according to a university spokesman.

James G. Osborn, the church's would-be campus minister, said the information on the application was purposely misinterpreted by the university. "My guess," he added, "is that they have bought into the public perception of the Unification Church as a less-than-holy organization." He said the church might file a legal appeal.

Washington U. to Close Its Sociology Department

Students at Washington University last week protested a decision by the institution to shut down its sociology department in two years.

About 250 students and professors held a rally and accused the university of abolishing the department to concentrate more resources on professional programs. But Martin H. Israel, dean of the faculty of arts and sciences, said the department was weak and the university had decided to use its resources elsewhere.

The department, which had at one time been considered one of the best in the country, has seven faculty members, three of whom have tenure and will continue to work at the university. The other four have been guaranteed positions for two years.

Mr. Israel said sociology courses would continue to be taught at the university, probably under the auspices of another department.

What They're Reading on College Campuses

		Previous Survey
1.	The Satanic Verses, by Salman Rushdie	5
2.	Yukon Ho! by Bill Watterson	—
3.	The Icarus Agenda, by Robert Ludlum	—
4.	Lonesome Dove, by Larry McMurtry	2
5.	All I Really Need to Know I Learned in Kindergarten, by Robert Fulghum	8
6.	The Shell Seekers, by Rosamunde Pilcher	7
7.	What Color Is Your Parachute? by Richard N. Bolles	—
8.	Swim With the Sharks Without Being Eaten Alive, by Harvey Mackay	—
9.	The Bonfire of the Vanities, by Tom Wolfe	1
10.	Chaos, by James Gleick	3

The Chronicle's list of best-selling books was compiled from information supplied by stores serving the following campuses: Baylor U., Bucknell U., Carleton College, Carnegie Mellon U., Case Western Reserve U., Central Michigan U., Denison U., Idaho State U., Indiana U., Kent State U., Lawrence U., Lehigh U., Mankato State U., Montana State U., Pennsylvania State U., Portland State U., Princeton U., Stanford U., Tarrant County Junior College, Tulane U., U. of Alaska at Anchorage, U. of California at San Diego, U. of Hawaii, U. of Illinois at Urbana-Champaign, U. of Iowa, U. of Maryland–Baltimore County, U. of Missouri at Columbia, U. of Nebraska at Lincoln, U. of New Orleans, U. of Notre Dame, U. of Pittsburgh, U. of Puget Sound, U. of Virginia, U. of Washington, U. of Wisconsin at Madison, U. of Wisconsin at Milwaukee, and Xavier U. (Ohio).

Reports covered sales of hardcover and paperback trade books in March.

Outcry at Colgate U. Over Fraternity's Diaries

Archives stolen from a Colgate University fraternity—describing illegal drug use, hazing, and sexual assaults—have ignited student protests and prompted an administrative investigation of the group's activities.

Copies of the journal, which recounts activities by members of Delta Kappa Epsilon over at least five years, circulated on the campus this month. About 500 students protested the fraternity's alleged activities and demanded that the administration abolish the chapter and crack down on the fraternity system. Nearly 100 students spoke during the three-hour demonstration.

A university spokeswoman said that the fraternity's members and pledges had been barred from participating in campus events until university officials complete their investigation.

A fraternity spokesman said the chapter was cooperating with the investigation.

Suspended Student Editor Leaves Dartmouth

One of the two student journalists who obtained a court order that temporarily set aside their suspensions from Dartmouth College has left the institution.

John H. Sutter, a senior, told the Lebanon, N.H., *Valley News* that he was having "a miserable term" because his legal battles with the college had left him exhausted.

Sean M. Gorman, associate college counsel at Dartmouth, said Mr. Sutter was no longer a student, but that he had not voluntarily withdrawn. Mr. Gorman, citing the confidentiality of student records, declined to elaborate.

Mr. Sutter and Christopher E. Baldwin, editors of the conservative Dartmouth *Review*, were suspended along with two other students for confronting a professor about whom they had written an article. They were reinstated after a judge found that a member of the college's disciplinary panel may have been biased against the *Review*.

The lawsuit that led to the injunction against the suspensions is pending in state court. A federal suit against the college has been

Business Schools Urged to Reorient Programs Toward 'Managerial Leaders'

By **JEAN EVANGELAUF**

MONTREAL

Business schools must reshape their academic programs if they are to graduate "managerial leaders" instead of specialists in such narrow areas as accounting, finance, and marketing, according to the president of the American Assembly of Collegiate Schools of Business.

Reducing the dominance of the academic disciplines will require a new approach to doctoral education, more money, and incentives for innovation, said Robert K. Jaedicke, dean of Stanford University's business school, in remarks here last week at the assembly's annual meeting.

He said the business-school curriculum should be restructured to reflect the following trends:

- The "globalization" of markets and organizations.
- The growing importance of political, governmental, legal, and social processes on markets.
- Rapid technological change.
- The need for stronger ties between the public and private sectors to tackle such issues as toxic waste and trade policies.
- The demand for "higher levels of corporate responsibility and managerial ethics."

'Cash Cows'

He urged business schools to encourage doctoral students and young faculty members to conduct interdisciplinary research to address the "messy and ill-defined" issues of modern managers. "The discipline or a particular functional area cannot continue to be a safe harbor within which to spend one's faculty life," he said.

To improve, business schools must overcome the complacency and self-satisfaction brought on by their enormous success, said Mr. Jaedicke, who noted that one in every four bachelor's and master's degrees awarded is in business.

EDWARD W. SOUZA

Robert K. Jaedicke: Business schools must overcome the complacency brought on by success.

"Size, agility, and innovation typically don't go together," he said. "We need to be sure that university presidents and provosts are not lured into an unrealistic state of comfort and complacency by our size."

He criticized university administrators who view business schools as "cash cows" to milk for revenue to support other departments.

"Cash cows don't invite additional investment, risk-taking, and change," he said.

Concern Over Testing

The accreditation policies of the A.A.C.S.B. could stimulate improvements, according to Mr. Jaedicke, who said he hoped a new assembly effort to revise its standards would lead to standards that "encourage faculty to look outward and venture beyond their discipline."

He also warned business deans that the growing interest by states in requiring achievement testing was an impediment to innovation, saying such testing typically emphasized knowledge of specific disciplines over interdisciplinary work.

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Fact File: Average Faculty Salaries for 1988-89

	Public		Private, independent		Church-related		All	
	Salary	1-year increase	Salary	1-year increase	Salary	1-year increase	Salary	1-year increase
Doctoral institutions								
Professor	$54,240	5.9%	$64,290	6.3%	$57,160	5.5%	$56,400	6.0%
Associate professor	39,570	5.7%	43,680	6.1%	41,180	5.3%	40,300	5.8%
Assistant professor	33,400	6.1%	36,650	7.1%	33,840	5.7%	34,010	6.2%
Instructor	23,580	5.5%	28,750	7.0%	29,310	6.3%	24,290	5.6%
Lecturer	26,270	—	28,230	—	25,390	—	26,620	—
All ranks	43,010	5.9%	50,760	6.4%	43,380	5.5%	44,440	6.0%
Comprehensive institutions								
Professor	$46,920	5.1%	$47,010	6.7%	$44,070	5.6%	$46,700	5.3%
Associate professor	37,350	5.6%	37,050	5.8%	35,570	5.5%	37,110	5.6%
Assistant professor	30,900	5.8%	30,400	6.1%	29,920	6.0%	30,710	5.9%
Instructor	24,030	4.2%	23,710	5.9%	23,050	5.7%	23,890	4.5%
Lecturer	24,610	—	26,350	—	30,550	—	25,050	—
All ranks	38,080	5.3%	37,220	6.2%	35,610	5.7%	37,720	5.5%
Baccalaureate institutions								
Professor	$41,080	5.4%	$44,770	5.8%	$36,190	5.7%	$40,410	5.6%
Associate professor	34,250	5.2%	34,120	6.1%	30,120	5.7%	32,570	5.7%
Assistant professor	28,380	4.6%	27,910	6.3%	25,210	5.6%	26,940	5.5%
Instructor	23,020	5.8%	22,330	5.9%	21,300	5.7%	22,150	5.8%
Lecturer	24,190	—	28,260	—	22,270	—	24,420	—
All ranks	32,910	5.1%	34,580	6.0%	29,350	5.7%	32,030	5.6%
2-year institutions with academic ranks								
Professor	$41,200	6.1%	$30,150	5.7%	$25,050	5.8%	$40,920	6.1%
Associate professor	34,450	4.7%	26,560	3.7%	22,960	7.3%	34,240	4.7%
Assistant professor	29,510	5.4%	22,810	5.8%	21,650	7.5%	29,190	5.5%
Instructor	24,480	5.9%	19,730	6.1%	17,810	4.1%	24,270	5.9%
Lecturer	21,600	—	—	—	—	—	21,600	—
All ranks	33,500	5.5%	24,650	5.2%	21,940	7.1%	33,200	5.5%
2-year institutions without academic ranks								
All	$31,210	5.1%	$21,990	9.7%	$23,510	2.9%	$31,040	5.1%
All institutions except 2-year institutions without academic ranks								
Professor	$50,070	5.6%	$55,900	6.3%	$41,900	5.6%	$50,420	5.8%
Associate professor	37,890	5.6%	38,800	6.0%	33,560	5.8%	37,530	5.7%
Assistant professor	31,680	5.8%	31,930	6.6%	27,590	57%	31,160	6.0%
Instructor	23,890	5.1%	24,050	6.2%	22,060	57%	23,660	5.3%
Lecturer	25,360	—	27,850	—	25,010	—	25,770	—
All ranks	39,640	5.7%	42,410	6.3%	33,180	56%	39,410	5.8%

— No data reported

Note: Salary figures are based on 1,899 institutions; percentage increases are based on 1,880 institutions.

SOURCE: AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS

Faculty Salaries Rise 5.8 Pct., Outpacing Inflation Rate

Continued from Page A1

faculty members, regardless of location or type of institution:

- Full professor—$50,420, up 5.8 per cent.
- Associate professor—$37,530, up 5.7 per cent.
- Assistant professor—$31,160, up 6.0 per cent.
- Instructor—$23,660, up 5.3 per cent.

When adjusted for inflation, the average salary increase for all faculty members was 1.3 per cent.

Mr. Kasper said the increase was not only small when adjusted for inflation, but was small in comparison to the increases in college and university tuition in recent years.

"Faculty members are just not getting the full benefit of those rises in costs to help them catch up with the real standard of living," he said.

The association's survey data and report, "Higher Education Goals, Low Salary Increases," were released last week in the March-April issue of its magazine, *Academe*. Mr. Kasper said the report's title was intended to reflect what he said was an apparent lack of support for faculty members at a time when the importance of higher education was being increasingly emphasized.

The results of this year's salary study, which showed average salaries according to region, type of institution, academic rank, and sex, are consistent with trends that have been identified in the association's previous surveys.

Salary increases for professors at private colleges and universities continued to outpace those for their colleagues at public institutions, according to the survey. While the average salary for professors at public institutions is $39,640 this year, 5.7 per cent more than in 1987-88, the average salary rose 6.3 per cent at private independent institutions—to $42,410.

The data also showed that significant differences between salaries earned by men and women still exist. Salaries for male faculty members are between 7.5 per cent and 13.2 per cent higher than those for females. Male full professors, for example, are earning an average of $51,150, compared to $45,190 for female professors.

New Data on Men and Women

For the first time, this year's survey collected data on the proportions of male and female faculty members by rank and type of institutions. Association officials say those data could be used to examine how women are rising through professorial ranks in comparison to their male colleagues. The data will first be published in the association's magazine.

As in past years, the varying cost-of-living rates around the country and the location of some institutions also influenced faculty salaries.

For example, in the West Coast states, the average salary for all professors is $45,750. In the Central Southeast states—Alabama, Kentucky, Mississippi, and Tennessee—the average salary is $34,330.

A detailed breakdown of salaries by institution, which will be published in a future issue of *The Chronicle*, will document the wide range of faculty salaries at different types of institutions. According to last year's survey, for example, the average salary for full professors at the University of California at Los Angeles was $63,000, while the average for professors of the same rank at the University of Mississippi was $41,300.

Some higher education officials say the results of the A.A.U.P.'s survey, along with the personnel association's survey of administrators' salaries and its forthcoming survey of faculty salaries by discipline, help them to assess salaries paid at their own institutions.

The full A.A.U.P. faculty salary report includes additional nationwide averages and trends, detailed analyses of salary and fringe benefits, and a discussion of the financial concerns of the academic community. More detailed tables are also available through the association.

Copies of the issue of *Academe* in which the report appears are available for $27 each from the American Association of University Professors, 1012 Fourteenth Street, N.W., Suite 500, Washington 20005; (202) 737-5900.

FACULTY NOTES

Continued from Preceding Page

for tenured college professors from 65 to 70, according to Mr. Pennycuick's lawyer, David Lopez.

The jury in U.S. District Court in Houston ruled this month that the former dean of the business school had discriminated against Mr. Pennycuick because of his race. It also found that the dean had retaliated against him for testifying on behalf of a white colleague in the business school during a previous federal court trial. A judge had ruled in the earlier case that the white professor was paid less than his black colleagues.

Mr. Pennycuick was awarded $207,000 in damages.

"They definitely didn't want whites on that faculty," he said in an interview. "I represented a threat to them, and they wanted me out."

Renee Smith, the university's counsel, noted that the judgment was against the former dean, Herbert Watkins, and not the university. She said the university has never discriminated against anyone on the basis of race. —KATHERINE S. MANGAN

Universities Said to Be Too Reactive in Setting Faculty Ethics Rules

Continued from Preceding Page

the authors say will look at how graduate students in engineering and the sciences acquire values. Portions of the survey data appeared in a recent issue of "Communicator," a newsletter published by the Council of Graduate Schools, based in Washington.

In an interview, Ms. Louis said that more universities were developing or revising policies on research ethics because of a growing movement among some higher-education institutions to commercialize their research and attract corporate sponsors. She added, however, that some institutions might be reluctant to enforce their policies or require their graduate students to study ethical issues because they do not want to be seen as intruding on faculty autonomy, or because they do not want to hinder scientists who bring in large amounts of grant money.

Because a large proportion of future academic scientists receive their graduate training at top research institutions, Ms. Louis said, such institutions should be leading efforts to examine ethical dilemmas that may arise in research. But, she said, "it is not my impression that they are confronting that role with a lot of enthusiasm."

Guidelines on Stocks

Indeed, some campus patent officials have expressed concerns that many institutions are not adequately addressing potential ethical, legal, or financial questions that result from technology-transfer efforts (*The Chronicle*, April 12). Because a growing number of institutions are seeking to commercialize patented discoveries, many are adopting more stringent guidelines on such issues as stock ownership and spin-off companies based on university technology. But like Ms. Louis, some officials are concerned that such policies are not keeping pace with potential problems.

The survey of graduate-school deans gathered data on how institu-

Every student should take the LASSI.

Learning and Study Strategies Inventory.
Used by over 470 schools.

By Claire E. Weinstein, Ph.D., et.al.
University of Texas, Austin

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News Summary

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The chemists who first claimed to have produced nuclear fusion in a flask asked Congress for money to develop their process: Page A6.

A controversial philosopher has challenged his critics by laying out in a new book his positions on politics and moral principle: Page A7.

Roman Catholic educators met in Rome to discuss Vatican proposals on higher education: Page A15.

No full-time, tenure-track faculty members organized bargaining units in 1988, a report says: Page A15.

Congressional budget committees approved increases in education programs for fiscal 1990: Page A23.

A last-minute budget deal spared New York's public-university systems from big cuts, but sparked angry student protests: Page A23.

The Consortium for the Advancement of Private Higher Education has appointed Jon W. Fuller as its president: Page A29.

A 134-foot brigantine is a classroom for students who spend six weeks on board learning oceanography and nautical science: Page A33.

Growing public concern about the integrity of college sports has led a House education subcommittee to hold a hearing: Page A35.

Student protests in China moved closer to a seemingly inevitable clash with the government: Page A39.

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Gifts to Colleges Off 3.5 Pct.; Cutback by Alumni Blamed

Private contributions decline for the first time since 1974-75

By GILBERT FUCHSBERG

Concerned about tax-law changes and shaken by the stock-market crash, alumni cut back on giving to their alma maters in 1987-88, causing the first overall decline in private contributions to colleges and universities in more than a decade.

Contributions from alumni slipped 13 per cent, according to the Council for Aid to Education, which last week released its latest annual survey of voluntary support.

As a result, the estimated total of private support from all sources fell to $8.2-billion, down 3.5 per cent, or $300-million, from the previous year's record.

The fall-off was influenced largely by a drop in alumni giving to private colleges and universities. Public institutions recorded a slight increase in gifts, thanks to rising corporate support and new fund-raising prowess.

The decline in total giving was the first since 1974-75. Council officials termed it a "correction" after a decade of double-digit increases and two years in which alumni contributions jumped by more than 25 per cent.

"These things don't go on forever," said Hayden W. Smith, the council's senior

Continued on Page A30

Top 10 Institutions in Voluntary Support

Stanford U.	$181,914,314
Harvard U.	155,104,624
Cornell U.	142,027,634
Yale U.	121,238,917
U. of Minnesota	109,533,409
U. of Pennsylvania	106,163,050
Cal. Inst. of Tech.	97,432,224
M.I.T.	96,901,772
Columbia U.	93,729,845
U. of Wisconsin at Madison	89,076,681

Multiple-unit systems not included above University of California, $262,300,000. University of Texas, $167,300,000

SOURCE: COUNCIL FOR AID TO EDUCATION

8 Publishers Charge Copyright Violation, Sue Copying Chain

At issue: reproduction of material for professors at 3 universities

By JUDITH AXLER TURNER

Eight publishers last week sued Kinko's Graphics Corporation for copyright violation, claiming that two of the chain's photocopying stores had illegally reproduced "substantial portions" of 12 books and included them in anthologies made for professors at Columbia University, the New School for Social Research, and New York University.

Damages sought under the copyright law could exceed $1-million. Neither the institutions nor the professors were named in the lawsuit.

Many observers believe that a lawsuit against a college or university may still be in the works. A 1982 lawsuit against New York University for photocopying without permission was preceded by suits against photocopying shops, they point out.

'Warning Shot Across the Bow'

Sheldon E. Steinbach, vice-president and general counsel of the American Counsel on Education, called the lawsuit "another warning shot across the bow" for copy shops directly—and for higher-education institutions indirectly—"to remind everybody that there is a copyright law in existence and that publishers will seek from time to time to vigorously enforce it."

Carol Risher, director of copyright and new technology at the Association of American Publishers, said that faculty members and institutions were not named in last week's lawsuit because "publishers believe there has been an increasing awareness of copyright responsibility

Continued on Page A21

Outlook Is Bleak for Federal Aid to Help Colleges Repair Their Decaying Science Buildings

By COLLEEN CORDES

WASHINGTON

Colleges and universities can expect virtually no help from federal programs next year for repairing their decaying science buildings.

A law enacted last year created a new National Science Foundation program to modernize research facilities. However, the program is expected to receive little or no money next year, even though the law allows Congress to provide up to $125-million.

As a result, competition to influence the direction of N.S.F. spending is likely to grow between administrators and scientists who are worried most about deteriorating research buildings and those who are most concerned about increasing support for research projects.

The lack of funds already has intensified debate over colleges' efforts to win direct appropriations from Congress for their campuses.

But some higher-education officials see signs that federal support for facilities could increase down the road. Many are hoping that the selection of D. Allan Bromley, a Yale University physicist, to be President Bush's top adviser for science and technology will provide some relief.

Mr. Bromley played a leading role in writing a White House Science Council report three years ago that recommended a $5-billion, 10-year federal program to modernize campus research facilities.

Higher-education officials say his support could help place a proposal to finance the program in the Administration's next budget.

"I hope the first thing Dr. Bromley will do is dust the report off for the new occu-

Continued on Page A24

A dramatic increase in U.S. science spending has been proposed by the National Academy of Sciences' president: A23.

Governor's Plan to Raise More Money for Education Worries Ohio's Colleges and Nettles Its Legislators

By MARY CRYSTAL CAGE

COLUMBUS, OHIO

Exasperated Ohio legislators have nicknamed Gov. Richard F. Celeste's plan to provide more money for education "the blackmail budget."

The name demonstrates why few college officials are supporting the Democratic Governor's proposal—even though it would generate an additional $1.8-billion for schools and colleges during the next two years. In fact, many educators fear that the tactics the Governor has employed to enrich their coffers by raising the state income tax by one percentage point will actually worsen their financial condition.

The Governor's strategy of withholding support for many of the most popular higher-education programs unless the tax passes has angered many educators. Beyond that, virtually no one backs the program itself. That is because Governor Celeste's promise of more revenue also contains two provisions to which many people object: a tax referendum that must be passed by Ohio's fiscally conservative voters and the creation of a new board to dispense the money raised by the new tax.

'I Thought It Was Necessary'

Undaunted by his critics, Governor Celeste says: "My recommendation of a major initiative for education was not designed because I felt it would cause educators to stand up and cheer. It was designed

Continued on Page A28

How Much Professors Earn at 1,600 Institutions

A list of average faculty salaries at 1,600 colleges, by rank and type of institution, begins on Page A17.

MARGINALIA

News item in the Huntington (W.Va.) *Herald-Dispatch:*

"Two Marshall University administrators have been elected officers of the West Virginia Chapter of Fun Raising Executives."

Their meetings are a riot.

■

From a news release from the John Marshall Law School:

"Harold G. Rudolf, Professor of Law at the University of Witwatersrand in Johannesburg, South Africa, . . . will speak about 'South Africa: A Peal at the Future.' "

A view from the mountaintop?

■

Gary A. Thibodeau, chancellor of the University of Wisconsin at River Falls, has received a mailing addressed to:

THE OWNER
UNIVERSITY OF WISCONSIN
RIVER FALLS CAMPUS
RIVER FALLS, WI 54022

"Only a limited sell-off of facilities is planned," Mr. Thibodeau assures us.

■

The law library at the University of Mississippi has received a mailing from the Mayo Clinic with this computer-printed heading:

LAW LIBRARY
YOUR BODY DESERVES THE BEST!
SO GET THE LATEST AND BEST WORD
ON NUTRITION FROM ONE OF
THE WORLD'S MOST TRUSTWORTHY
NAMES IN HEALTH CARE.

Try passing the bar, for starters.

■

We have it on good authority that the following sign was posted at the cashier's office at Oregon State University:

NO CHECKS CASHED FOR CASH

■

Memorandum from Tufts University's department of art and the history of art and architecture:

"I would like to form a monthly lunch group at the Faculty Dining Room where Tufts faculty who do research and teach in the 19th century can discuss our work together. . . ."

Horse-drawn transportation provided?

■

Which reminds us: *Careers*, a bulletin from the career-planning and placement office at Harvard University, carried this job announcement:

"Fort Hays State University: Temporary, full-time position, contract renewable for up to three years, teaching composition. Qualifications: Prefer backgrounds in creative writing, composition / rhetoric, or 19th / 29th century British literature. . . ."

And bring an unclouded crystal ball. —C.G.

In Brief

3 Academics Win Louisville's $150,000 Prizes

LOUISVILLE, KY.

The University of Louisville will award $150,000 each to an Arizona State University music professor, a Harvard University government professor, and a French educator named last week as winners of its Grawemeyer Awards.

Chinary Ung, a Cambodian native and associate professor of music at Arizona State, won the award in music composition for his orchestral work, *Inner Voices*.

Robert Keohane, chairman of Harvard's government department, won the prize for "ideas improving world order." He was cited for his 1984 book, *After Hegemony: Cooperation and Discord in the World Political Economy*.

Bertrand Schwartz, a former education professor and adviser to the French government, was selected for the education award for innovative programs he developed to improve on-the-job training for unskilled and unemployed youth.

The university received 126 nominations for the education award, 141 for the music prize, and 35 for ideas for improving world order. The awards are named for Charles Grawemeyer, a Louisville alumnus who established the program in 1984 with an $11.5-million gift. The university plans to begin awarding a prize in religion next year.

—THOMAS J. DeLOUGHRY

Rutgers Opens Residence for Substance Abusers

Rutgers University last week opened a residential treatment program on its New Brunswick campus for college students with substance-abuse problems.

Under the program, which organizers called the first of its kind, students are allowed to continue their academic work at the university while receiving treatment.

Known as the New Jersey Collegiate Substance Abuse Program, it is open to students from Rutgers and other colleges in the state—both private and public.

Since December, the program has treated 20 students on an outpatient basis, and is now accepting its first residential patients.

The treatment unit is operated by the university's Center for Alcohol Studies and its Office of Student Life Policy and Services.

Howard U. President to Leave Post in June

After 20 years as president of Howard University, James E. Cheek has announced that he will retire from the historically black institution, effective June 30.

A search committee has been appointed by Howard's trustees to select a replacement.

Alan Hermesch, a spokesman for Howard, said Mr. Cheek did not specify the reasons for his retirement or his future plans. Mr. Hermesch said he did not think Mr. Cheek's decision was related to recent protests at Howard.

The Bush Administration was considering the Howard president for the post of Ambassador to the Republic of Cameroon, but Mr. Cheek reportedly has told the White House he is no longer interested in the job because of ill health.

Students End Protests at 2 Universities

A sit-in by black students at Wayne State University ended after 12 days when the administration agreed to increase financing for a black-studies program and to hire more black faculty members.

Under an agreement reached with the students, the university said it would transform its Center for Black Studies into a full department to be renamed the Department of Africana Studies.

Students at the University of New Mexico at Albuquerque, who had been occupying parts of the administration building for 13 days to protest a tuition increase, ended their sit-in.

The protesters had hoped to persuade the university's regents to roll back the tuition increase from 7.9 per cent, or $100 a year, to 3.9 per cent, or $50 a year.

During a special meeting last week, the board declined to do so and instead set aside $200,000 as a "safety net" for students who could not afford the increase.

PROTESTERS DEMAND END TO USE OF ANIMALS IN RESEARCH

A FREE NATION IS FREEDOM FOR ALL
STOP THE CRUELTY
END ANIMAL AGONY
ICE

NEW YORK UNIVERSITY

NEW YORK

Hundreds of animal-rights activists across the country held demonstrations last week, like the one at New York University (*above*), to protest the use of animals in laboratory experiments.

The protesters, who demonstrated at more than two dozen research centers and universities, called for an end to research that they say is cruel to animals. The activists, who called the series of protests "World Laboratory Animal Liberation Week," urged universities and the federal government to develop alternatives to animal research and to spend more money on the prevention of diseases.

New York University researchers at a panel discussion held before the protest there defended the use of animals in research as critical to improving the condition of human life.

—MICHELE N-K COLLISON

Drop-Out Rate Said High for American Indians

A survey of American Indian students has found that only a third of those who attend college succeed in obtaining a degree, and more than half of those who drop out before graduating do so in their freshman year.

Robert N. Wells, a professor of government at St. Lawrence University, said he conducted the study because so little is known about the recruitment and retention of American Indian students. He surveyed 79 institutions with American Indian enrollments of at least 4 per cent, and 33 of the colleges responded.

The greatest difficulties facing American Indian students, the survey found, were inadequate preparation, limited financial resources, and difficulties adjusting to a campus environment.

Retention rates remain "disturbingly low," Mr. Wells said, even though all of the colleges surveyed said they offered remedial education, and three-quarters said they had American Indian counselors, courses, and social clubs.

Berkeley Faculty Favors Required Course on Race

Faculty members at the University of California at Berkeley narrowly approved a plan last week that would require all undergraduates to take a course examining race, culture, and ethnicity in American society.

Faculty members approved the plan by a 227-to-194 vote. Freshmen will be required to take the course starting in fall 1991.

The new requirement could be satisfied by taking courses in various disciplines, but all courses would have to be approved by a nine-member faculty-student panel. To meet the criteria, a course would have to address "theoretical and analytical issues relevant to understanding race, culture, and ethnicity" in American society. Each course would have to study at least three of the follow-

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FACT FILE: Average Salaries of Full-Time Faculty Members at 1,600 Institutions

The following table shows average faculty salaries by rank at more than 1,600 colleges, universities, and multi-campus systems in 1988-89.

The salaries are reported in thousands of dollars and are rounded to the nearest hundred. They cover all full-time members of the instructional staff except those in medical schools.

The figures are adjusted to a standard nine-month work year.

The designations I, IIA, IIB, III, and IV are defined in the rating table at the right, which gives the percentile distributions of salaries for each academic rank.

Average faculty salaries for institutions without ranks, most of which are two-year colleges, appear in a table on Page A20.

A dash appears whenever an institution has fewer than six faculty members in a given rank. A blank space indicates the institution has no faculty members at that rank. The tables omit footnotes qualifying the information reported by some institutions.

The figures were compiled for the American Association of University Professors by Maryse Eymonerie Associates.

The full salary report appears in the March-April issue of *Academe*, the association's magazine. It is available for $27 prepaid from the A.A.U.P., 1012 14th Street, N.W., Suite 500, Washington 20005; (202) 737-5900.

For special tabulations and supplementary tables, contact Maryse Eymonerie Associates at P.O. Box 7893, Hilton Head, S.C. 29938; (803) 785-5346.

ALABAMA

	Prof	Assoc Prof	Asst Prof	Inst
Alabama A&M U, IIA	35.6	31.4	27.1	20.3
Alabama St U, IIB	36.9	33.0	28.3	22.0
Athens St C, IIB	40.9	36.0	27.6	—
Auburn U				
Main, I	49.7	38.8	32.7	22.4
Montgomery, IIA	44.5	36.0	29.8	23.7
Birmingham				
Southern C, IIB	41.4	30.7	27.0	—
Huntingdon C, IIB	30.1	27.6	24.5	—
Jacksonville St U, IIA	39.9	36.7	31.0	27.3
Judson C, IIB	28.4	—	22.2	—
Livingston U, IIB	31.9	26.7	23.2	20.3
Oakwood C, IIB	24.0	23.4	22.8	21.4
Spring Hill C, IIB	36.8	32.7	26.3	—
Troy St U				
Main, IIA	38.8	31.2	27.4	23.9
Dothan, IIA	37.5	31.1	32.5	—
Montgomery, IIA	32.6	33.1	26.5	—
Tuskegee U, IIA	35.0	28.8	25.6	19.2
U of Alabama				
Main, I	51.8	36.3	31.5	22.6
Birmingham, I	48.5	35.8	30.3	22.6
Huntsville, IIA	51.1	36.7	31.8	24.5
U of Montevallo, IIA	35.9	30.5	26.7	21.3
U of South Alabama, IIA	42.2	34.6	31.8	24.4

ALASKA

	Prof	Assoc Prof	Asst Prof	Inst
Alaska Pacific U, IIA	47.8	41.4	36.5	—
U of Alaska				
Anchorage, IIA	52.7	46.5	37.2	35.2
Fairbanks, I	57.3	45.5	36.4	30.1
Southeast, IIA	—	44.4	36.2	31.6

ARIZONA

	Prof	Assoc Prof	Asst Prof	Inst
American Grad Sch of Internat'l Mgmt, IIB	43.6	36.0	31.6	—
Arizona St U, I	53.2	40.5	34.1	27.4
Northern Arizona U, IIA	47.3	38.3	31.4	23.3
U of Arizona, I	55.5	40.9	34.4	27.8

ARKANSAS

	Prof	Assoc Prof	Asst Prof	Inst
Arkansas C, IIB	37.3	32.5	26.0	—
Arkansas St U Main, IIA	39.4	33.4	27.4	21.1
Arkansas Tech U, IIB	35.1	30.8	27.8	20.8
Henderson St U, IIB	34.0	29.9	26.5	21.4
Hendrix C, IIB	38.2	32.0	27.1	
John Brown U, IIB	33.4	29.4	25.3	—
Ouachita Baptist U, IIA	32.8	29.3	24.5	20.9
Southern Arkansas U				
Main, IIB	36.6	31.8	27.1	21.8
Tech, III	—	24.5	23.9	—
U of Arkansas				
Main, I	46.4	35.3	30.4	21.6
Little Rock, IIA	43.8	35.8	29.8	23.7
Monticello, IIB	33.9	29.4	25.1	22.0
Pine Bluff, IIB	34.1	30.3	28.3	23.7
U of Central Arkansas, IIA	41.4	33.8	27.6	22.3
U of the Ozarks, IIB	25.9	23.9	22.4	—

CALIFORNIA

	Prof	Assoc Prof	Asst Prof	Inst
Azusa Pacific U, IIA	30.8	27.4	24.4	21.8
Biola U, IIA	37.2	29.8	22.0	22.1
California Inst of Tech, I	74.8	57.4	45.5	
Cal Maritime Acad, IIB	45.7	37.8	—	26.3
California St U				
Bakersfield, IIA	53.3	40.1	33.0	28.5
Cal Poly St U				
San Luis Obispo, IIA	53.1	42.9	33.6	27.2
Chico, IIA	53.2	41.5	33.1	28.9
Dominguez Hills, IIA	53.2	41.2	34.6	26.7
Fresno, IIA	53.5	40.7	32.9	27.5
Fullerton, IIA	53.5	42.1	33.1	27.6
Hayward, IIA	53.2	41.5	33.2	27.9
Humboldt St U, IIA	52.8	41.8	33.0	—
Long Beach, IIA	53.3	42.0	33.5	28.5
Los Angeles, IIA	53.2	42.4	34.2	27.6
Northridge, IIA	53.6	41.2	33.9	28.4
Poly U Pomona, IIA	53.9	41.9	35.2	28.5
Sacramento, IIA	53.5	40.8	33.8	—
San Bernardino, IIA	52.8	40.7	34.0	28.2
San Diego St U, IIA	53.2	42.1	34.7	28.3
San Francisco St U, IIA	52.8	41.8	33.2	28.2
San Jose St U, IIA	53.3	41.5	34.1	29.3
Sonoma St U, IIA	53.1	42.0	33.1	—
Stanislaus, IIA	53.2	40.6	32.0	28.5
Chapman C, IIA	43.0	36.7	31.9	—
Christ C Irvine, IIB	38.0	31.9	24.8	
Claremont Grad Sch, I	59.1	44.7	30.3	
Claremont				
McKenna C, IIB	55.5	38.9	33.2	—
Cogswell Polytech C, IIB	—	29.9	—	
C of Notre Dame, IIB	36.9	29.1	25.8	—
Golden Gate U, I	54.8	41.1	35.9	—
Harvey Mudd C, IIB	61.3	45.1	36.7	—
Kern CC Dist, III	41.6	35.4	31.4	25.0
LA C of Chiropractic, IIA	37.6	30.8	24.8	—
Loyola Marymount U, IIA	55.0	43.6	32.0	28.4
Mennonite Brethren				
Biblical Sem, IIA	—	40.1	—	
Mills C, IIA	47.3	36.0	30.0	—
Monterey Inst of				
Internat'l Studies, IIA	—	33.0	26.3	—
Mount Saint Mary's C, IIB	37.6	31.0	26.5	21.6
Naval Postgraduate Sch, I	49.7	40.5	36.9	
Occidental C, IIB	51.3	39.4	29.9	27.6
Fremont-				
Newark CC Dist, III	42.3	38.7	38.7	34.4
Pacific Sch				
of Religion, IIA	39.6	—	—	
Pacific Union C, IIB	27.9	26.3	24.8	23.5
Palomar C, III		43.5		32.1
Pepperdine U, IIA	50.3	40.3	33.6	
Pitzer C, IIB	50.7	—	27.7	
Point Loma				
Nazarene C, IIB	39.2	30.4	26.3	—
Pomona C, IIB	58.4	41.9	34.4	—
Saint Mary's C of Cal, IIA	48.6	38.4	30.7	
Santa Clara U, IIA	61.1	42.4	36.4	
Scripps C, IIB	52.0	38.9	30.4	
Southern California C, IIB	36.3	33.3	27.7	—
Southwestern U, IIB	58.1	45.6	—	—
Stanford U, I	74.9	53.3	41.5	
U of California				
Berkeley, I	68.4	45.0	38.4	
Davis, I	61.7	42.8	36.2	
Irvine, I	64.5	43.8	38.5	
Los Angeles, I	67.3	43.3	38.5	
Riverside, I	60.4	41.5	34.2	
San Diego, I	65.9	43.9	37.6	
Santa Barbara, I	64.5	42.3	37.2	
Santa Cruz, I	60.8	41.1	37.1	
U of La Verne, IIA	37.3	28.6	23.5	—
U of the Pacific, IIA	44.2	38.4	31.8	23.0
U of Redlands, IIA	43.8	36.1	30.6	
U of San Diego, IIA	52.6	37.4	33.1	—
U of San Francisco, IIA	56.4	41.6	34.4	29.8
U of Southern Cal, I	64.9	45.8	38.8	40.3
Westmont C, IIB	38.7	32.6	27.7	—
Whittier C, IIA	47.1	35.0	27.9	—

COLORADO

	Prof	Assoc Prof	Asst Prof	Inst
Colorado C, IIB	50.2	37.7	31.1	—
Colorado Mountain C, III	31.5	26.8	22.6	—
Colo Sch of Mines, IIA	50.2	37.4	33.5	—
Colorado St U Sys				
Colorado St U, I	46.7	35.6	31.4	—
Fort Lewis C, IIB	36.1	29.4	28.7	—
U of Southern Colo, IIA	39.7	33.0	29.9	24.8
CC of Denver, III	29.8	18.7		18.4
Iliff Sch of Theology, IIA	46.2	42.0	—	
Regis C, IIB	35.9	35.6	26.3	
St C's in Colorado				
Adams St C, IIA	37.3	30.2	27.4	25.6
Mesa St C, IIB	37.2	30.5	26.0	23.2
Metropolitan St C, IIB	38.5	32.7	28.1	21.2
Western St C, IIA	34.7	31.4	24.3	16.8
U of Colorado				
Boulder, I	51.4	39.6	35.7	27.3
Colorado Springs, IIA	45.9	37.0	32.0	22.6
Denver, IIA	49.0	38.5	33.2	21.6
Health Sci Ctr, IIA	51.0	41.7	34.5	24.9
U of Denver, I	49.1	36.7	30.6	32.6
U of Northern Colorado, I	44.0	34.8	29.0	23.5

CONNECTICUT

	Prof	Assoc Prof	Asst Prof	Inst
Albertus Magnus C, IIB	33.6	27.2	23.5	—
Asnuntuck CC, III	—	—	—	27.6
Connecticut C, IIA	47.8	37.0	28.0	28.1
Conn St Tech C's, III	45.3	39.8	34.2	—
Connecticut St U Sys				
Central Conn St U, IIA	52.7	38.9	28.3	28.2
Eastern Conn St U, IIA	51.5	42.0	31.1	—
Southern Conn St U, IIA	50.8	41.6	36.7	29.1
Western Conn St C, IIA	50.6	40.8	34.6	—
Fairfield U, IIA	49.4	40.4	33.9	—
Greater Hartford CC, III	44.6	—	31.4	27.6
Hartford Grad Ctr, IIB	60.0	49.5	42.7	
Housatonic CC, III	43.1	—	34.7	—
Manchester CC, III	45.0	34.3	35.1	29.8
Mattatuck CC, III	43.6	37.1	34.4	27.5
Middlesex CC, III	44.6	37.5	35.2	25.2
Mitchell C, III			26.2	17.2
Mohegan CC, III	44.0	36.5	30.5	27.3
NW Conn CC, III	43.9	36.7	30.3	27.5
Norwalk CC, III	46.2	37.8	32.1	28.6
Post C, IIB	—	33.4	27.6	
Quinebaug Valley CC, III	41.9	—	—	—
Quinnipiac C, IIB	46.4	37.6	30.4	25.7
Sacred Heart U, IIB	41.2	33.3	28.2	—
Saint Joseph C, IIA	34.0	29.9	25.9	24.3
South Central CC, III	42.6	35.0	35.0	27.9
Trinity C, IIB	54.3	40.8	29.9	—
Tunxis CC, III	42.0	37.5	31.7	27.3
U of Bridgeport, IIA	52.5	42.7	33.8	28.6

CONNECTICUT—Continued

	Prof	Assoc Prof	Asst Prof	Inst
U of Connecticut, I	61.5	46.1	37.9	35.4
U of Hartford, IIA	45.6	36.7	31.0	
U of New Haven, IIA	43.3	38.2	33.5	—
Wesleyan U, IIA	57.8	39.9	33.9	—
Yale U, I	72.6	44.0	34.6	31.4

DELAWARE

	Prof	Assoc Prof	Asst Prof	Inst
Delaware St C, IIA	40.5	32.4	28.7	22.3
U of Delaware, I	56.0	39.9	32.7	23.2
Wesley C, IIB	32.9	29.6	27.2	—

DISTRICT OF COLUMBIA

	Prof	Assoc Prof	Asst Prof	Inst
American U, I	59.6	43.4	35.9	29.5
Catholic U, I	50.2	37.0	30.4	
Gallaudet U, IIA	51.1	38.9	31.9	24.6
George Washington U, I	59.2	42.3	34.7	24.1
Georgetown U, I	66.5	45.2	33.0	26.7
Mount Vernon C, IIB	—	32.9	25.4	
U of the				
District of Columbia, IIA	47.8	40.4	33.3	29.2
Wesley Theol Sem, IIA	34.8	—	—	—

FLORIDA

	Prof	Assoc Prof	Asst Prof	Inst
Barry U, IIA	39.3	32.2	30.1	22.2
Bethune Cookman C, IIB	27.4	23.8	21.6	18.1
Eckerd C, IIB	40.3	33.0	27.8	
Embry-Riddle				
Aeronautical U, IIA	41.6	32.2	26.3	18.7
Florida Southern C, IIB	33.6	29.0	24.6	23.9
Hillsborough CC, III	39.0	33.5	29.3	27.8
Jacksonville U, IIB	31.2	24.9	22.6	—
Manatee CC, III	35.2	28.1	24.6	20.4
Miami-Dade CC, III	40.0	33.4	28.5	23.6
Palm Beach				
Atlantic C, IIB	34.1	33.1	28.9	—
Rollins C, IIB	45.5	35.3	28.5	22.1
Saint Leo C, IIB	30.5	26.3	24.6	—
St U Sys of Florida				
Florida A&M U, IIA	43.5	37.0	31.1	25.6
Florida Atlantic U, IIA	48.3	36.4	33.0	24.6
Fla International U, IIA	48.6	38.0	33.0	23.7
Florida St U, I	49.6	36.1	31.7	25.3
U of Central Florida, IIA	46.0	36.8	31.2	23.2
U of Florida, I	57.4	42.5	37.1	28.7
U of North Florida, IIA	43.6	35.0	31.5	—
U of South Florida, I	49.3	37.1	31.9	26.8
U of West Florida, IIA	45.8	35.4	29.4	25.6
Stetson U, IIA	47.9	34.4	30.1	20.5
U of Miami, I	52.2	39.1	33.5	28.4

GEORGIA

	Prof	Assoc Prof	Asst Prof	Inst
Agnes Scott C, IIB	42.9	34.7	28.8	—
Armstrong St C, IIB	40.4	33.5	27.2	23.8
Atlanta Christian C, IIB	26.8	—		
Atlanta Metropolitan C, III	—	31.4	28.5	—
Augusta C, IIA	43.3	33.8	29.0	23.3
Berry C, IIB	40.9	32.6	26.7	—
Brunswick JC, III	36.6	31.9	27.0	24.3
Columbia Theol Sem, IIA	34.5	—	—	—
Columbus C, IIA	39.4	33.8	30.4	23.1
Covenant C, IIB	33.8	31.2	23.7	
DeKalb C, III	39.1	34.9	28.9	23.0
East Georgia C, III	—	—	28.6	—
Emory U, I	60.2	40.8	31.4	26.7
Floyd C, III	39.7	28.7	27.1	20.6
Gainesville C, III	40.8	30.0	27.7	22.2
Georgia C, IIA	39.8	33.0	30.4	23.0
Georgia Inst of Tech, I	57.6	42.7	38.1	26.3
Ga Southwestern C, IIA	39.8	33.0	28.8	—
Georgia St U, I	53.7	39.8	32.8	24.1
Interdenominational				
Theological Ctr, IIA	38.9	29.5	—	—
Kennesaw C, IIB	44.5	36.0	29.9	21.9
Macon C, III	36.8	32.3	27.1	22.9
Oglethorpe U, IIB	37.9	31.0	26.0	
Paine C, IIB	26.9	21.6	19.7	17.3
Savannah St C, IIB	42.5	33.9	28.4	24.5
Shorter C, IIB	32.7	26.1	24.1	21.0
Southern C of Tech, IIB	39.1	38.7	30.6	—
U of Georgia, I	53.7	37.6	31.9	22.0
Valdosta St C, IIA	42.3	34.8	29.7	23.6
Wesleyan C, IIB	39.5	34.1	29.8	—
West Georgia C, IIA	41.4	33.6	30.4	21.7

HAWAII

	Prof	Assoc Prof	Asst Prof	Inst
Chaminade U				
of Honolulu, IIB	25.9	25.0	21.0	—
U of Hawaii				
Manoa, I	52.4	39.9	32.8	25.6
Hilo, IIB	43.9	35.4	29.8	—
West Oahu, IIB	37.1	—	—	

IDAHO

	Prof	Assoc Prof	Asst Prof	Inst
Boise St U, IIA	36.7	31.5	27.8	—
C of Southern Idaho, III	28.8	26.7	23.6	—
Idaho St U, IIA	37.3	31.7	27.7	25.2
Lewis-Clark St C, IIB	31.8	28.3	24.6	—
U of Idaho, I	42.0	33.6	30.9	—

ILLINOIS

	Prof	Assoc Prof	Asst Prof	Inst
Augustana C, IIB	45.2	36.2	28.8	25.2
Aurora U, IIB	33.8	30.8	28.2	
Barat C, IIB	36.0	25.7	22.2	—
Bd of Governors of				
St C's & U's				
Chicago St U, IIA	35.5	29.3	25.7	22.4
Eastern Illinois U, IIA	36.8	31.1	27.4	20.1
Northeastern Ill U, IIA	36.4	30.7	27.8	—
Western Illinois U, IIA	37.6	33.5	29.2	18.1
Bradley U, IIA	43.1	35.9	29.7	21.7
C of DuPage, III	45.9	38.8	32.8	27.9
Concordia C, IIB	30.9	27.4	22.0	
De Paul U, IIA	51.4	40.8	35.1	26.1
Elmhurst C, IIB	40.8	33.9	27.6	—
Eureka C, IIB	30.9	27.0	23.4	
Illinois Benedictine C, IIA	38.1	30.0	29.1	
Illinois Central C, III	37.8	32.6	26.5	24.4
Illinois C, IIB	38.7	33.3	24.7	—
Illinois Inst of Tech, I	54.7	39.9	32.2	20.4
Illinois St U, IIA	43.7	35.2	30.9	
Illinois Wesleyan U, IIB	39.4	31.7	26.7	24.4
Judson C, IIB	31.8	29.6	24.1	—
Knox C, IIB	40.5	32.3	27.2	—
Lake Forest C, IIB	47.6	39.0	29.6	—
Lewis U, IIA	35.3	29.3	25.9	24.0
Loyola U of Chicago, I	53.1	41.0	33.6	34.1
MacCormac C, III	—	22.7	20.9	—
Mennonite C				
of Nursing, IIB		—	—	22.8
Millikin U, IIB	43.4	34.6	27.0	22.7
Monmouth C, IIB	38.8	32.8	25.2	—
Moraine Valley CC, III	42.3	33.7	29.1	25.9
National C				
of Chiropractic, IIB	35.6	28.9	25.6	24.2
National C				
of Education, IIA	43.2	33.2	28.3	—
North Central C, IIB	41.2	33.5	29.6	—
North Park C, IIB	33.0	28.2	23.9	—
Northern Illinois U, I	46.8	36.6	30.3	19.0
Northwestern U, I	64.4	44.1	38.9	
Olivet Nazarene C, IIA	29.6	25.3	22.3	20.0
Parks C				
of Saint Louis U, IIB	42.2	35.5	32.5	27.0
Principia C, IIB	39.8	32.9	29.3	23.9
Quincy C, IIB	30.5	28.2	22.8	—
Richland CC, III	32.9	32.0	27.7	21.9
Rockford C, IIB	32.8	27.0	24.2	—
Roosevelt U, IIA	36.8	31.6	29.1	—
Rosary C, IIB	—	31.5	29.5	—
Saint Xavier C, IIB	37.0	31.2	25.2	21.6
Sangamon St U, IIA	41.5	35.8	29.9	—
Sauk Valley CC, III	35.3	31.3	26.3	—
Sch of the Art Inst				
of Chicago, IIB	39.0	32.3	25.4	
Southern Illinois U				
Carbondale, I	46.8	36.1	29.7	24.5
Edwardsville, IIA	43.2	36.5	30.4	24.8
Spertus C of Judaica, IIB	48.0	—		
Trinity Christian C, IIB	34.4	31.1	28.2	—
Trinity C, IIB	—	27.6	23.1	—
Trinity Evangelical				
Divinity Sch, IIA	40.1	33.1	29.9	—
U of Chicago, I	67.7	44.9	38.0	30.5
U of Illinois				
Chicago, I	54.6	39.0	34.1	25.2
Urbana-Champaign, I	57.2	40.8	36.4	—
Wheaton C, IIA	40.7	34.9	30.0	

AAUP Rating Scale

Category I: Doctoral Institutions

	1+	1	2	3	4
Professor	$68,300	$61,700	$56,400	$52,200	$46,800
Associate professor	47,600	43,900	41,200	39,000	36,100
Assistant professor	39,000	36,400	34,500	32,800	30,800
Instructor	34,100	28,800	26,500	24,600	22,100

Category IIA: Comprehensive Institutions

	1+	1	2	3	4
Professor	$55,900	$50,200	$45,400	$41,200	$37,300
Associate professor	41,600	40,100	37,000	33,700	31,100
Assistant professor	36,100	33,200	30,900	29,200	26,700
Instructor	29,800	27,300	24,900	23,300	21,200

Category IIB: Baccalaureate Institutions

	1+	1	2	3	4
Professor	$51,000	$43,400	$38,400	$34,300	$30,300
Associate professor	39,400	35,300	32,000	29,100	26,000
Assistant professor	31,700	28,900	27,000	24,800	22,400
Instructor	28,300	24,800	22,600	21,000	19,300

Category III: 2-Year Institutions with Academic Ranks

	1+	1	2	3	4
Professor	$46,300	$43,600	$40,200	$36,900	$32,400
Associate professor	39,800	36,600	34,300	31,600	28,000
Assistant professor	34,700	30,800	29,100	26,900	24,800
Instructor	28,600	26,900	24,800	23,100	20,900

Category IV: 2-Year Institutions Without Academic Ranks

	1+	1	2	3	4
All	$39,100	$33,800	$30,100	$26,900	$24,200

Note: Scale is based on the distribution of 1,899 institutions by average salary for 1988-89, rounded to the nearest hundred dollars. Percentile rankings are as follows: 1+ = 95th percentile; 1 = 80th percentile; 2 = 60th percentile; 3 = 40th percentile; 4 = 20th percentile. An average salary of $58,000 for the rank of professor in Category I institutions would be rated 2 because it falls between the 60th percentile ($56,400) and the 80th percentile ($61,700).

SOURCE: AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS

INDIANA

	Prof	Assoc Prof	Asst Prof	Inst
Ball St U, I	42.7	35.0	28.0	18.6
Butler U, IIA	39.1	33.3	28.2	22.3
DePauw U, IIB	44.3	34.2	27.6	
Earlham C, IIB	41.3	29.6	27.4	
Fort Wayne Bible C, IIB	—	21.4	19.1	
Franklin C of Indiana, IIB	28.8	27.1	24.3	
Goshen C, IIB	27.2	24.1	21.9	
Grace Schs, IIB	29.1	24.7	—	—
Hanover C, IIB	42.6	31.6	25.0	23.5
Huntington C, IIB	36.6	30.6	25.4	21.4
Indiana St U, I	42.5	33.6	27.7	19.8
Indiana U				
Bloomington, I	54.5	38.6	32.3	—
East, III	—	—	26.0	
Indianapolis, IIA	50.7	37.1	31.0	—
Kokomo, IIB	38.8	34.0	28.8	
Northwest, IIA	46.4	35.8	29.2	—
Purdue U				
Fort Wayne, IIA	42.5	34.0	27.3	19.3
South Bend, IIA	42.3	35.4	29.9	—
Southeast, IIA	41.3	33.5	26.5	
Indiana Wesleyan U, IIB	27.8	21.1	19.7	—
Manchester C, IIB	34.2	27.8	25.0	20.8
Oakland City C, IIB	22.4	21.1	19.9	18.7
Purdue U				
Main, I	57.8	40.6	34.1	21.1
Calumet, IIA	44.2	35.5	29.5	22.3
North Central, III	40.4	32.7	26.8	
Rose-Hulman Inst				
of Tech, IIB	45.4	40.4	34.7	
Saint Joseph's C, IIB	32.5	29.1	27.4	—
Saint Mary's C, IIB	44.1	34.8	27.3	—
Saint Meinrad C, IIB	30.8	—	—	
Taylor U, IIB	30.3	27.2	23.7	—
Tri-State U, IIB	34.2	28.2	24.7	
U of Evansville, IIA	36.2	31.4	28.9	—
U of Indianapolis, IIA	37.3	31.8	27.0	24.4
U of Notre Dame, I	65.7	44.5	38.3	—
U of Southern Indiana, IIA	39.1	34.2	29.5	24.4
Valparaiso U, IIA	41.8	32.9	27.7	20.5
Vincennes U, III	34.5	28.7	23.7	19.7
Wabash C, IIB	48.9	36.2	29.6	—

IOWA

	Prof	Assoc Prof	Asst Prof	Inst
Briar Cliff C, IIB	32.8	28.1	24.8	21.6
Buena Vista C, IIB	40.3	34.2	28.1	23.8
Central U of Iowa, IIB	39.8	33.8	27.2	22.8
Clarke C, IIB	29.6	27.7	21.9	22.0
Coe C, IIB	37.2	29.9	24.0	
Cornell C, IIB	41.3	30.5	27.1	—
Dordt C, IIB	31.8	27.3	24.5	24.9
Drake U, IIA	43.8	34.8	27.9	23.5
Graceland C, IIB	28.2	24.7	21.7	—
Grinnell C, IIB	51.0	37.8	30.9	28.4
Iowa St U, I	53.9	40.3	34.0	22.1
Iowa Valley CC Dist, III	32.0	27.2	22.7	19.9
Kirkwood CC, III	31.9	27.1	25.2	22.8
Loras C, IIB	34.3	28.2	25.5	—
Luther C, IIB	37.5	30.0	25.5	22.1
Morningside C, IIB	31.6	26.0	23.9	—
Mount Mercy C, IIB	—	26.3	26.6	21.1
Northwestern C, IIB	30.3	26.2	22.7	—
Palmer C				
of Chiropractic, IIA	38.4	31.4	25.9	20.8
Saint Ambrose U, IIB	32.8	29.8	26.2	—
Simpson C, IIB	38.6	31.3	26.5	23.2
U of Dubuque, IIB	33.1	30.2	24.8	—
U of Iowa, I	55.7	42.2	35.8	29.3
U of Northern Iowa, IIA	45.6	37.4	31.2	24.7
Upper Iowa U, IIB	—	25.4	—	19.0
Waldorf C, III	28.3	26.1	22.4	—
Wartburg C, IIB	35.2	29.6	24.4	—
Wartburg Theol Sem, IIB	32.2	—	—	
Westmar C, IIB	26.4	—	21.5	—

KANSAS

	Prof	Assoc Prof	Asst Prof	Inst
Benedictine C, IIB	28.0	25.0	20.5	—
Bethany C, IIB	31.5	27.2	23.5	—
Bethel C, IIB	26.4	24.0	20.6	—
Emporia St U, IIA	36.7	32.1	27.5	
Fort Hays St U, IIA	37.3	31.1	28.0	23.9
Kansas St U, I	44.4	33.9	30.3	23.6
Kansas Wesleyan, IIB	24.2	19.9	18.0	16.0
Marymount C of Kan, IIB	—	21.3	19.2	15.2
McPherson C, IIB	27.0	22.5	20.0	—
Mid-America				
Nazarene C, IIB	29.3	24.6	22.2	19.3
Ottawa U, IIB	27.8	25.1	21.7	18.6
Pittsburg St U, IIA	37.8	32.6	28.8	22.2
Saint Mary C, IIB	28.5	24.4	20.0	18.1
Southwestern C, IIB	28.9	26.5	24.8	20.9
Tabor C, IIB	26.7	22.9	19.8	—
U of Kansas Main, I	47.6	38.3	30.5	23.9

Continued on Following Page

FACT FILE: Average Salaries of Full-Time Faculty Members at 1,600 Institutions—Continued

KANSAS—Continued

	Prof	Assoc Prof	Asst Prof	Inst
Washburn U, IIA	43.6	33.2	26.9	21.8
Wichita St U, IIA	46.2	34.7	29.3	21.2

KENTUCKY

	Prof	Assoc Prof	Asst Prof	Inst
Asbury Theol Sem, IIA	34.8	30.8	—	—
Bellarmine C, IIB	38.0	28.2	26.3	22.3
Berea C, IIB	41.2	32.2	26.4	—
Centre C, IIB	42.5	34.4	28.0	25.0
Eastern Kentucky U, IIA	37.9	32.6	28.1	22.8
Georgetown C, IIB	32.9	27.9	23.5	—
Kentucky St U, IIB	38.6	32.7	27.7	24.2
Kentucky Wesleyan C, IIB	31.[illegible]	27.3	21.3	—
Lexington Theol Sem, IIA	31.5	—		
Lindsey Wilson C, IIB		26.9	20.8	19.2
Morehead St U, IIA	35.6	29.4	25.7	20.3
Murray St U, IIA	36.7	31.5	27.7	22.0
Northern Kentucky U, IIA	40.5	32.9	26.7	23.7
Pikeville C, IIB	25.9	25.2	22.9	—
Spalding U, IIB	28.4	25.1	23.4	18.8
Thomas More C, IIB	24.4	24.0	20.9	—
Transylvania U, IIB	37.6	31.7	27.5	—
U of Kentucky, I	48.0	35.2	31.1	33.2
CC Sys, III	32.8	26.5	22.1	20.6
U of Louisville, I	46.4	35.1	29.1	22.9
Western Kentucky U, IIA	38.1	31.8	27.4	21.6

LOUISIANA

	Prof	Assoc Prof	Asst Prof	Inst
Centenary C of La, IIB	38.3	30.3	27.1	19.0
Louisiana C, IIB	30.7	26.1	24.0	—
Louisiana St U				
A&M C, I	49.0	36.1	31.1	20.8
Alexandria, III	32.0	26.0	23.9	18.7
Eunice, III	—	27.8	24.4	23.4
Shreveport, IIA	35.9	32.9	27.9	20.4
U of New Orleans, IIA	41.1	31.0	27.7	19.8
Louisiana Tech U, IIA	35.6	31.6	27.3	21.2
Loyola U, IIA	47.1	38.3	30.0	24.7
Nicholls St U, IIA	33.6	29.1	26.5	21.3
Our Lady				
of Holy Cross C, IIB	—	24.1	23.5	23.3
Southeastern La U, IIA	33.0	30.4	26.0	20.7
Southern U				
Shreveport, III	—	27.0	25.0	22.8
Tulane U, I	54.7	41.8	34.9	24.6
U of Southwestern La, IIA	40.4	32.5	29.1	21.9
Xavier U of Louisiana, IIA	33.0	27.9	24.0	21.1

MAINE

	Prof	Assoc Prof	Asst Prof	Inst
Bates C, IIB	50.8	39.0	29.3	28.4
Bowdoin C, IIB	54.6	39.5	31.5	26.8
Colby C, IIB	54.7	40.1	30.7	26.4
Maine Maritime Acad, IIB	32.4	28.4	24.3	
Saint Joseph's C, IIB	—	—	22.4	
U of Maine				
Main, IIA	49.8	37.8	31.8	21.2
Augusta, III	37.5	29.1	25.4	22.3
Farmington, IIB	40.0	31.8	26.2	24.9
Fort Kent, IIB	36.3	29.2	27.5	—
Machias, IIB	39.4	34.0	24.2	—
Presque Isle, IIB	39.3	32.7	25.8	—
U of Southern Me, IIA	49.1	38.2	31.9	23.9

MARYLAND

	Prof	Assoc Prof	Asst Prof	Inst
Allegany CC, III	35.6	29.3	25.0	25.4
Anne Arundel CC, III	45.3	38.1	31.0	26.3
Capitol C, IIB	—	28.3	24.2	
Catonsville CC, III	46.4	38.9	33.3	27.2
Cecil CC, III	38.6	35.3	29.1	21.2
Chesapeake C, III	—	26.6	24.6	21.9

MARYLAND—Continued

	Prof	Assoc Prof	Asst Prof	Inst
C of Notre Dame				
of Maryland, IIB	37.6	29.7	27.7	22.4
Columbia Union C, IIB	42.0	23.2	21.4	20.3
CC of Baltimore, III	38.8	32.1	28.8	23.9
Dundalk CC, III	43.4	36.6	30.8	—
Essex CC, III	46.1	37.8	32.2	24.5
Frederick CC, III	—	33.2	28.0	—
Garrett CC, III	—	—	20.3	—
Goucher C, IIB	43.6	31.6	27.1	22.3
Hagerstown JC, III	37.4	32.4	26.0	—
Harford CC, III	40.9	33.9	26.7	
Hood C, IIA	45.2	36.0	28.4	24.7
Howard CC, III	43.4	35.2	30.0	25.1
Johns Hopkins U, I	64.4	45.0	35.3	32.7
Loyola C in Maryland, IIA	45.0	40.1	31.9	20.2
Montgomery C				
Germantown, III	43.2	34.1	—	—
Rockville, III	45.1	35.6	31.3	—
Takoma Park, III	45.0	33.3	29.5	—
Morgan St U, IIA	47.2	39.3	34.7	27.3
Mount Saint Mary's C, IIB	40.8	31.9	25.3	20.7
Prince George's CC, III	44.8	38.3	29.6	27.1
Saint Mary's C of Md, IIB	46.5	35.3	27.8	—
US Naval Acad, IIB	46.8	35.6	29.2	23.3
U of Maryland Sys				
College Park, I	60.5	42.6	35.6	25.0
Baltimore, I	65.2	47.7	37.5	26.8
Baltimore County, IIA	57.6	41.4	34.6	24.9
Eastern Shore, IIA	—	41.2	36.5	30.8
Bowie St C, IIB	46.5	37.5	31.7	25.6
Coppin St C, IIB	45.5	36.4	31.8	26.2
Frostburg St U, IIA	45.5	36.6	32.0	27.9
Salisbury St U, IIB	46.0	37.3	29.7	26.1
Towson St U, IIA	48.0	40.4	33.1	26.2
U of Baltimore, IIA	54.4	45.3	37.3	
Washington Bible C, IIA	25.5	20.0	—	
Washington C, IIB	41.5	34.2	27.1	
Western Maryland C, IIB	41.2	34.8	27.6	—
Wor-Wic Tech CC, III	—	—	29.1	24.2

MASSACHUSETTS

	Prof	Assoc Prof	Asst Prof	Inst
Amherst C, IIB	59.3	42.3	34.8	
Andover Newton				
Theol Sch, IIA	35.0	25.5	—	
Anna Maria C, IIB	—	31.3	26.8	—
Assumption C, IIB	41.3	34.7	28.9	24.7
Bay Path C, III	—	28.1	22.9	—
Bentley C, IIA	57.6	46.4	38.6	32.0
Berklee C of Music, IIB	38.9	31.4	25.4	19.3
Boston C, I	58.0	43.1	36.1	33.5
Brandeis U, I	59.4	42.3	34.2	—
Clark U, IIA	56.6	41.1	34.9	—
C of the Holy Cross, IIB	55.6	40.6	31.3	28.4
Dean JC, III	34.1	32.5	24.2	20.8
Eastern Nazarene C, IIB	28.9	24.7	21.8	—
Emerson C, IIA	55.9	42.6	33.2	—
Emmanuel C, IIB	39.1	33.9	27.7	22.8
Endicott C, III	28.5	26.3	24.7	20.7
Gordon C, IIB	35.7	29.7	24.9	—
Gordon-Conwell				
Theol Sem, IIA	41.8	34.5	—	
Hampshire C, IIB	44.4	36.7	30.3	
Harvard U, I	79.3	43.8	39.0	26.5
Hellenic C, IIA	40.5	—	—	—
Lasell JC, III	22.4	—	21.9	22.2
Mass Board of Regents				
U of Lowell, IIA	57.5	45.8	38.2	31.8
U of Massachusetts				
Amherst, I	60.8	47.3	36.7	—
Boston, IIA	57.1	47.4	38.1	—
Fitchburg St C, IIA	46.0	40.0	34.4	27.6

MASSACHUSETTS—Continued

	Prof	Assoc Prof	Asst Prof	Inst
Greenfield CC, III	40.5	32.0	—	—
Massasoit CC, III	41.2	35.9	31.2	27.0
Middlesex CC, III	39.7	32.9	30.9	27.8
North Shore CC, III	42.1	34.9	30.2	31.0
Springfield Tech CC, III	40.9	34.5	31.7	26.4
Mass Inst of Tech, I	71.6	51.2	41.3	28.4
Mass Maritime Acad, IIB	47.5	41.2	39.3	
Merrimack C, IIB	43.8	34.8	28.3	
Mount Holyoke C, IIB	51.2	37.2	29.6	—
Northeastern U, I	51.1	39.8	36.4	23.0
Pine Manor C, IIB	39.5	32.4	25.9	—
Regis C, IIB	39.1	32.4	27.2	—
Simmons C, IIA	50.9	40.3	32.2	28.4
Smith C, IIA	55.9	40.0	30.7	25.5
Springfield C, IIA	41.6	33.0	24.3	23.6
Stonehill C, IIB	39.9	33.5	28.2	
Suffolk U, IIA	55.9	41.8	36.1	26.7
Tufts U, I	59.0	43.3	36.5	
Wellesley C, IIB	57.7	40.5	33.0	—
W New England C, IIA	50.8	37.2	33.7	28.0
Wheaton C, IIB	49.7	37.1	27.2	
Wheelock C, IIA	41.4	32.5	27.5	—
Williams C, IIB	57.4	40.5	34.0	
Worcester Poly Inst, IIA	55.3	44.2	39.1	

MICHIGAN

	Prof	Assoc Prof	Asst Prof	Inst
Adrian C, IIB	35.5	28.1	24.6	—
Albion C, IIB	43.1	35.0	27.1	—
Alma C, IIB	40.1	33.5	27.2	—
Aquinas C, IIB	34.5	30.6	24.0	—
Calvin C, IIB	38.1	33.0	29.4	24.3
Central Michigan U, IIA	46.6	39.3	31.7	24.9
Concordia C, IIB	30.7	26.9	21.9	
Eastern Michigan U, IIA	45.4	37.6	31.8	28.7
Ferris St C, IIB	40.5	35.1	31.6	29.1
Grand Rapids				
Baptist C, IIB	26.6	23.1	19.6	
Grand Valley St U, IIA	44.7	37.7	28.5	—
Great Lakes Bible C, IIB	24.9	—		—
Hope C, IIB	39.5	33.8	27.0	—
Kalamazoo C, IIB	43.8	35.4	29.0	
Lake Superior St U, IIB	37.2	32.6	27.7	23.2
Marygrove C, IIB	32.4	26.7	21.5	—
Mercy C of Detroit, IIB	34.3	29.2	23.3	21.5
Michigan St U, I	53.5	40.9	33.4	24.9
Michigan Tech U, IIA	56.0	39.6	33.7	24.3
Nazareth C, IIB	—	28.6	23.6	—
Northern Michigan U, IIA	43.5	36.5	27.1	25.2
Oakland U, IIA	48.4	38.6	33.5	30.2
Olivet C, IIB	30.7	26.6	20.6	—
Saginaw Valley St U, IIA	39.9	33.7	30.1	30.0
Siena Heights C, IIB		28.0	26.4	—
Spring Arbor C, IIB	28.6	25.5	22.1	—
U of Detroit, IIA	43.7	36.4	30.9	20.9
U of Michigan				
Ann Arbor, I	62.9	47.6	39.2	—
Dearborn, IIA	45.1	35.0	31.7	
Flint, IIA	44.4	37.8	29.8	—
Wayne St U, I	53.4	41.0	35.9	28.1
Western Michigan U, I	46.2	37.5	31.5	21.2

MINNESOTA

	Prof	Assoc Prof	Asst Prof	Inst
Augsburg C, IIB	34.5	28.7	25.3	—
Bethel C, IIB	33.8	28.8	24.2	20.8
Carleton C, IIB	50.3	40.0	31.2	26.6
C of Saint Benedict, IIB	38.7	32.2	27.1	—
C of Saint Catherine, IIB	37.1	31.2	25.5	22.9
C of Saint Scholastica, IIB	39.6	30.9	26.4	21.4
C of Saint Thomas, IIA	44.1	35.2	29.7	26.1

Average Faculty Salaries for 1988-89

	Public		Private, independent		Church-related		All	
	Salary	1-year increase	Salary	1-year increase	Salary	1-year increase	Salary	1-year increase
Doctoral institutions								
Professor	$54,240	5.9%	$64,290	6.3%	$57,160	5.5%	$56,400	6.0%
Associate professor	39,570	5.7%	43,680	6.1%	41,180	5.3%	40,300	5.8%
Assistant professor	33,400	6.1%	36,650	7.1%	33,840	5.7%	34,010	6.2%
Instructor	23,560	5.5%	28,750	7.0%	29,310	6.3%	24,290	5.6%
Lecturer	26,270	—	28,230	—	25,390	—	26,620	—
All ranks	43,010	5.9%	50,760	6.4%	43,380	5.5%	44,440	6.0%
Comprehensive institutions								
Professor	$46,920	5.1%	$47,010	6.7%	$44,070	5.6%	$46,700	5.3%
Associate professor	37,350	5.6%	37,050	5.8%	35,570	5.5%	37,110	5.6%
Assistant professor	30,900	5.8%	30,400	6.1%	29,920	6.0%	30,710	5.9%
Instructor	24,030	4.2%	23,710	5.9%	23,050	5.7%	23,890	4.5%
Lecturer	24,610	—	26,350	—	30,550	—	25,050	—
All ranks	38,080	5.3%	37,220	6.2%	35,610	5.7%	37,720	5.5%
Baccalaureate institutions								
Professor	$41,080	5.4%	$44,770	5.8%	$36,190	5.7%	$40,410	5.6%
Associate professor	34,250	5.2%	34,120	6.1%	30,120	5.7%	32,570	5.7%
Assistant professor	28,380	4.6%	27,910	6.3%	25,210	5.6%	26,940	5.5%
Instructor	23,020	5.8%	22,330	5.9%	21,300	5.7%	22,150	5.8%
Lecturer	24,190	—	28,260	—	22,270	—	24,420	—
All ranks	32,910	5.1%	34,580	6.0%	29,350	5.7%	32,030	5.6%
2-year institutions with academic ranks								
Professor	$41,200	6.1%	$30,150	5.7%	$25,050	5.8%	$40,920	6.1%
Associate professor	34,450	4.7%	26,560	3.7%	22,960	7.3%	34,240	4.7%
Assistant professor	29,510	5.4%	22,810	5.8%	21,650	7.5%	29,190	5.5%
Instructor	24,480	5.9%	19,730	6.1%	17,810	4.1%	24,270	5.9%
Lecturer	21,600	—	—	—	—	—	21,600	—
All ranks	33,500	5.5%	24,650	5.2%	21,940	7.1%	33,200	5.5%
2-year institutions without academic ranks								
All	$31,210	5.1%	$21,990	9.7%	$23,510	2.9%	$31,040	5.1%
All institutions except 2-year institutions without academic ranks								
Professor	$50,070	5.6%	$55,900	6.3%	$41,900	5.6%	$50,420	5.8%
Associate professor	37,890	5.6%	38,800	6.0%	33,560	5.6%	37,530	5.7%
Assistant professor	31,680	5.8%	31,930	6.6%	27,590	5.7%	31,160	6.0%
Instructor	23,890	5.1%	24,050	6.2%	22,060	5.7%	23,660	5.3%
Lecturer	25,360	—	27,850	—	25,010	—	25,770	—
All ranks	39,640	5.7%	42,410	6.3%	33,180	5.6%	39,410	5.8%

— No data reported

Note: Salary figures are based on 1,899 institutions; percentage increases are based on 1,880 institutions.

SOURCE: AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS

MINNESOTA—Continued

	Prof	Assoc Prof	Asst Prof	Inst
Concordia C-				
Moorhead, IIB	40.9	33.7	26.5	23.1
Gustavus Adolphus C, IIB	41.9	36.2	28.9	25.6
Hamline U, IIB	39.7	30.3	26.4	
Macalester C, IIB	48.8	36.2	28.5	—
Minneapolis C				
of Art and Design, IIB	34.3	28.7	23.6	—
Northwestern C, IIB	32.5	27.8	25.1	—
Northwestern C				
of Chiropractic, IIB	—	32.7	27.4	—
Saint John's U, IIB	43.0	35.8	28.3	23.8
Saint Mary's C, IIA	37.2	30.1	23.8	—
Saint Olaf C, IIB	45.8	34.9	27.7	26.0
St U Sys of Minn				
Bemidji St U, IIA	44.6	36.1	28.9	22.3
Mankato St U, IIA	46.1	37.6	31.3	23.4
Metropolitan St U, IIB	44.7	38.4	31.6	—
Moorhead St U, IIA	46.0	37.3	30.1	23.3
Saint Cloud St U, IIA	45.7	37.4	30.6	23.1
Winona St U, IIB	45.8	37.7	30.1	22.3
United Theol Sem				
Twin Cities, IIA	29.0	—		
U of Minnesota				
Twin Cities, I	54.5	39.8	34.4	28.7
Duluth, IIA	47.7	38.2	31.1	29.0
Morris, IIB	44.3	32.9	28.6	23.9
Tech C-Crookston, III	—	35.5	30.5	—
Tech C-Waseca, III	—	34.3	30.9	—

MISSISSIPPI

	Prof	Assoc Prof	Asst Prof	Inst
Alcorn St U, IIB	34.6	30.9	25.1	19.3
Delta St U, IIA	33.2	26.3	24.2	20.1
Millsaps C, IIB	40.3	31.0	26.9	—
Mississippi St U, I	40.9	32.7	29.4	21.8
Miss Valley St U, IIB	31.0	27.4	24.2	19.8
Reformed Theol Sem, IIA	37.1	—	—	
U of Mississippi, I	46.1	36.8	31.4	21.9
U of Southern Miss, I	50.3	37.6	32.3	23.6

MISSOURI

	Prof	Assoc Prof	Asst Prof	Inst
Assemblies of God				
Theol Sem, IIA	—	27.5	—	
Avila C, IIB	29.9	27.8	24.2	21.1
Central Bible C, IIB	—	24.3	20.8	—
Central Methodist C, IIB	33.6	27.6	22.2	22.3
Central Missouri St U, IIA	40.6	36.0	30.2	22.8
Columbia C, IIB	29.4	25.2	23.6	19.5
Cottey C, III	30.3	23.7	20.7	—
Culver-Stockton C, IIB	35.2	28.2	23.2	
Drury C, IIB	36.4	31.2	25.7	23.2
Evangel C, IIB	29.9	24.6	21.6	—
Fontbonne C, IIB	27.2	21.5	18.3	18.6
Hannibal-LaGrange C, III	—	—	21.3	—
Harris-Stowe St C, IIB	32.3	27.6	27.8	23.7
Kansas City Art Inst, IIB	33.1	28.9	—	
Lincoln U, IIA	33.4	27.0	24.3	20.1
Lindenwood C, IIA	30.3	24.9	23.2	
Maryville C, IIB	35.0	28.3	22.6	20.9
Missouri Baptist C, IIB	—	—	—	12.8
Mo Southern St C, IIB	40.9	34.5	29.1	24.5
Missouri Valley C, IIB	25.2	24.9	21.5	17.6
Mo Western St C, IIB	39.0	33.2	27.6	21.8
Nazarene Theol Sem, IIA	31.2	—	—	
Northeast Mo St U, IIA	42.1	34.9	29.1	24.4
Northwest Mo St U, IIA	38.4	32.8	26.5	21.9
Park C, IIB	27.8	22.1	19.3	—
Rockhurst C, IIB	39.5	32.2	26.9	22.2
St Louis C				
of Pharmacy, IIB	41.7	36.1	29.3	—
St Louis CC				
Florissant Valley, III	43.3	37.0	31.0	—
Forest Park, III	43.2	37.3	29.5	25.4
Meramec, III	43.3	35.9	29.9	24.9
Saint Louis U, I	48.2	35.6	30.1	25.3
Sch of the Ozarks, IIB	33.4	27.7	24.5	
Southeast Mo St U, IIA	40.9	34.7	29.9	25.0
Southwest Baptist U, IIB	27.8	21.7	21.4	19.6
Southwest Mo St U, IIA	43.1	36.5	30.2	22.8
Tarkio C, IIB	—	24.6	22.5	18.8
U of Missouri				
Columbia, I	46.2	34.8	31.1	22.1
Kansas City, I	44.9	34.5	30.4	22.4
Rolla, I	48.2	37.8	33.8	—
St Louis, IIA	46.0	35.6	30.7	—
Washington U, I	58.2	41.6	33.5	27.3
Webster U, IIA	35.4	29.2	20.5	—
Westminster C, IIB	35.1	29.4	25.9	—
William Jewell C, IIB	34.6	28.8	24.8	—
William Woods C, IIB	29.5	24.3	21.1	20.6

MONTANA

	Prof	Assoc Prof	Asst Prof	Inst
Carroll C, IIB	31.6	27.1	22.2	—
C of Great Falls, IIB	26.6	23.0	20.6	—
Montana U Sys				
Eastern Montana C, IIA	31.0	27.9	23.8	20.0
Montana C of Mineral				
Science and Tech, IIA	37.6	33.3	26.0	—
Montana St U, I	38.4	30.4	25.6	—
U of Montana, I	34.0	27.4	25.4	19.0
Western Montana C, IIA	33.2	25.9	21.7	—
Rocky Mountain C, IIB	29.8	25.2	21.0	—

NEBRASKA

	Prof	Assoc Prof	Asst Prof	Inst
Bellevue C, IIB	—	24.5	20.9	—
Chadron St C, IIA	39.3	30.9	26.6	20.5
C of Saint Mary, IIB	—	26.4	23.8	—
Concordia				
Teachers C, IIA	27.2	24.7	18.4	—
Creighton U, IIA	48.9	36.2	28.5	21.2
Dana C, IIB	25.8	23.8	22.1	—
Doane C, IIB	35.1	29.5	24.3	—
Hastings C, IIB	31.1	28.1	23.1	19.8
Kearney St C, IIA	38.5	31.8	27.0	21.4
Midland Lutheran C, IIB	31.5	27.2	23.3	—
Nebraska Wesleyan U, IIB	36.6	29.7	26.3	—
Peru St C, IIB	38.2	30.9	27.4	22.0
Union C, IIB	23.0	21.9	19.3	
U of Nebraska				
Lincoln, I	46.2	35.0	30.8	19.2
Omaha, IIA	39.9	32.3	28.5	25.6
Wayne St C, IIB	37.2	31.9	26.9	21.1

NEVADA

	Prof	Assoc Prof	Asst Prof	Inst
U of Nevada				
Reno, I	49.2	38.8	33.4	—
Las Vegas, IIA	49.9	40.6	33.2	—

NEW HAMPSHIRE

	Prof	Assoc Prof	Asst Prof	Inst
Dartmouth C, I	61.3	43.6	36.3	28.2
Franklin Pierce C, IIB	31.0	26.4	21.4	19.5
Franklin Pierce				
Law Center, IIA	59.4		—	
New Hampshire C, IIB	39.7	34.1	27.8	—

NEW HAMPSHIRE—Continued

	Prof	Assoc Prof	Asst Prof	Inst
NH Voc Tech C				
Claremont, III	29.1	24.7	22.8	—
NH Voc Tech C				
Laconia, III	29.3	—	—	
Plymouth St C, IIB	40.9	33.3	28.3	25.9
Rivier C, IIA	—	29.6	25.1	—
U of New Hampshire, I	48.0	37.2	30.7	29.2

NEW JERSEY

	Prof	Assoc Prof	Asst Prof	Inst
Atlantic CC, III	41.0	38.5	31.8	—
Bloomfield C, IIB	36.9	30.6	26.1	—
Brookdale CC, III	45.5	38.7	29.8	25.6
Caldwell C, IIB	33.4	25.4	19.4	—
Camden County C, III	44.6	40.4	35.2	—
Centenary C, IIB	—	25.5	20.7	17.8
C of Saint Elizabeth, IIB	33.2	30.9	24.7	—
County C of Morris, III	43.5	36.6	30.0	25.1
Drew U, I	49.5	38.7	28.5	26.5
Essex County C, III	46.3	40.3	32.9	24.6
Fairleigh Dickinson U, IIA	47.0	39.1	33.6	27.3
Felician C, IIB	—	25.4	21.6	—
Georgian Court C, IIB	36.7	31.8	29.1	23.4
Glassboro St C, IIB	54.0	43.4	34.8	30.1
Gloucester County C, III	41.0	39.1	37.0	33.1
Hudson County CC, III	—	—	24.8	23.1
Jersey City St C, IIB	54.1	44.2	34.8	
Mercer County CC, III	44.9	38.2	30.8	24.7
Middlesex County C, III	49.5	45.7	38.2	28.7
Monmouth C, IIA	48.8	40.2	31.9	—
NJ Inst of Tech, IIA	64.6	50.2	42.5	
Ocean County C, III	47.6	43.1	31.2	24.6
Passaic County CC, III	—	35.2	28.5	24.0
Princeton Theol Sem, I	57.8	—	35.7	—
Princeton U, I	71.4	45.4	34.6	30.2
Ramapo C of NJ, IIB	48.9	42.5	31.3	—
Raritan Valley CC, III	43.8	36.5	31.6	24.7
Rider C, IIA	51.4	42.3	37.0	—
Rutgers U				
Camden, IIA	68.4	48.5	38.9	25.2
Newark, IIA	68.2	50.5	41.6	29.0
New Brunswick, I	65.9	46.9	37.2	25.7
Saint Peter's C, IIB	36.6	30.1	25.4	—
Salem CC, III	—	—	—	25.6
Seton Hall U, IIA	46.2	38.5	31.0	26.0
Union County C, III	45.7	36.1	29.1	25.4
Upsala C, IIB	38.5	30.3	24.9	21.9
William Paterson C, IIB	53.3	42.8	34.1	26.3

NEW MEXICO

	Prof	Assoc Prof	Asst Prof	Inst
Eastern New Mexico U				
Main, IIA	39.6	33.1	28.1	22.2
Roswell, III		—	—	25.4
NM Highlands U, IIA	35.5	30.8	26.4	—
NM Inst of				
Mining and Tech, I	40.8	31.3	30.5	
New Mexico St U				
Main, I	43.5	35.1	30.5	21.5
Alamogordo, III	—	31.3	26.0	24.7
Carlsbad, III	—	—	27.3	—
Dona Ana, III		—	25.0	22.4
San Juan C, III	—	29.2	27.4	27.4
U of New Mexico, I	45.4	34.1	30.8	—

NEW YORK

	Prof	Assoc Prof	Asst Prof	Inst
Adelphi U, I	49.4	37.2	32.7	—
Alfred U, IIA	43.0	34.4	31.0	24.1
Bard C, IIB	44.6	36.4	28.6	
Canisius C, IIB	44.3	37.5	30.0	—
Cazenovia C, III	31.4	—	23.4	19.7
Clarkson U, IIA	60.6	43.0	37.3	30.9
Colgate U, IIB	54.1	41.3	32.1	27.7
C of Aeronautics, III	34.7	31.6	28.0	25.4
C of Mt St Vincent, IIB	—	30.0	26.2	24.1
C of Saint Rose, IIA	37.7	32.5	26.2	21.8
Columbia U, I	68.3	48.1	36.4	—
Barnard C, IIB	58.6	36.5	32.3	22.8
Teachers C, I	55.0	41.8	32.9	23.4
Cooper Union, IIB	52.0	41.3	35.5	
Cornell U Endowed C's, I	62.8	44.0	37.7	28.0
Dominican C				
of Blauvelt, IIB	—	32.6	27.9	24.5
D'Youville C, IIB	34.6	27.3	24.1	—
Elizabeth Seton C, III	—	21.3	17.1	—
Elmira C, IIB	35.5	26.3	23.5	—
Fordham U, I	59.1	43.6	34.6	30.8
Hamilton C, IIB	51.4	37.2	31.2	28.4
Hartwick C, IIB	41.0	33.8	28.2	
Hilbert C, III	—	—	—	17.9
Hobart-				
William Smith C's, IIB	49.9	39.2	30.0	25.1
Hofstra U, I	54.4	42.9	36.3	33.7
Houghton C, IIB	29.8	25.9	23.0	—
Iona C, IIA	49.5	40.0	33.3	27.2
Ithaca C, IIB	45.2	36.2	28.0	21.1
Keuka C, IIB	28.5	22.8	20.5	—
Le Moyne C, IIB	42.8	35.4	27.8	24.8
Long Island U, IIA	50.2	39.0	31.7	26.6
Manhattan C, IIA	48.5	40.3	33.5	24.9
Manhattanville C, IIA	44.4	37.3	28.1	21.5
Marist C, IIB	45.4	37.8	29.6	23.6
Marymount C, IIB	41.2	35.0	29.8	—
Medaille C, IIB	31.0	27.7	22.3	19.3
Mercy C, IIB	41.0	32.4	26.3	22.6
Molloy C, IIB	40.4	32.4	26.9	22.0
Mount Saint Mary C, IIB	37.3	—	26.5	—
Nazareth C				
of Rochester, IIB	43.2	35.3	28.3	—
NY Inst of Tech, IIA	46.7	39.2	31.6	27.0
New York U, I	66.5	45.5	38.6	28.4
Niagara U, IIA	38.0	32.7	29.5	23.6
Pace U, IIA	49.7	40.3	34.1	—
Pace U Sch of Law, IIA	78.3	62.8	—	
Rensselaer Poly Inst, I	62.8	45.1	39.0	
Rochester Inst				
of Tech, IIA	45.3	38.4	32.1	27.2
Russell Sage C, IIA	38.7	30.6	26.0	21.5
JC of Albany, III	29.7	25.2	20.8	19.6
Saint Bonaventure U, IIA	42.3	35.6	30.0	27.0
Saint Francis C, IIB	45.1	36.7	30.4	22.7
Saint John Fisher C, IIB	40.2	33.3	28.7	—
Saint Lawrence U, IIB	53.6	38.2	28.8	25.0
Saint Thomas				
Aquinas C, IIB	39.9	34.0	28.4	—
Siena C, IIB	39.6	31.4	26.5	—
Skidmore C, IIB	49.0	38.0	30.9	—
State U of New York				
Albany, I	63.6	46.7	35.5	
Binghamton, I	61.6	44.4	35.4	
Buffalo, I	66.0	47.9	36.5	22.1
Stony Brook, I	65.5	46.0	36.0	26.5
Empire St C, IIB	47.8	39.3	31.7	—
C at Brockport, IIA	52.6	42.7	35.1	25.0
C at Buffalo, IIA	48.6	37.8	30.1	25.5
C at Cortland, IIA	48.4	37.4	29.6	—
C at Fredonia, IIA	50.6	39.0	30.7	25.9
C at Geneseo, IIA	49.8	38.5	29.4	25.7

NEW YORK—Continued

	Prof	Assoc Prof	Asst Prof	Inst
State U of New York				
C at New Paltz, IIA	49.6	40.8	33.0	—
C at Old Westbury, IIB	52.7	41.6	31.1	28.5
C at Oneonta, IIA	48.7	39.5	31.9	
C at Oswego, IIA	48.3	37.8	29.5	—
C at Plattsburgh, IIA	48.2	39.3	31.1	—
C at Potsdam, IIA	48.3	37.5	31.0	20.9
C at Purchase, IIB	48.6	37.2	29.7	
St C of Optometry, IIA	56.6	46.4	36.9	13.9
A&T C				
Alfred, III	45.7	38.8	31.7	24.6
Canton, III	42.3	34.3	30.5	28.2
Cobleskill, III	43.2	35.0	30.4	25.2
Delhi, III	42.7	35.1	28.6	23.4
Farmingdale, III	45.3	37.0	29.8	25.5
Morrisville, III	44.0	35.9	28.6	24.1
C of Environmental Sci and Forestry, IIA	50.8	41.9	33.8	
Maritime C, IIB	50.4	37.3	32.6	25.0
C of Tech, IIA	—	39.8	32.6	27.0
Fashion Inst of Tech, III	67.3	53.7	41.5	32.6
Cornell U Statutory C's, I	57.1	43.6	35.1	23.6
C of Ceramics at Alfred U, IIA	53.4	43.5	35.5	
Adirondack CC, III	39.0	29.8	26.2	21.9
Broome CC, III	40.6	33.7	27.4	27.8
Cayuga County CC, III	36.6	28.6	24.9	22.2
Clinton CC, III	—	28.7	26.0	—
Columbia-Greene CC, III	40.3	34.8	29.4	24.4
CC of Finger Lakes, III	36.9	30.3	25.8	23.3
Corning CC, III	41.3	29.8	25.2	—
Dutchess CC, III	45.9	39.8	31.0	24.4
Erie CCs, III	41.2	36.4	28.9	24.5
Fulton-Montgomery CC, III	39.3	32.3	28.1	21.7
Genesee CC, III	35.6	28.4	—	21.7
Herkimer County CC, III	38.3	31.9	25.1	19.7
Hudson Valley CC, III	40.2	35.6	28.7	23.3
Jefferson CC, III	44.7	37.0	29.4	25.8
Mohawk Valley CC, III	38.6	31.8	26.4	21.9
Monroe CC, III	45.3	38.0	31.5	26.9
Nassau CC, III	58.9	46.8	39.3	32.8
Niagara County CC, III	41.8	35.5	28.0	24.1
North Country CC, III	38.6	31.9	27.5	22.6
Onondaga CC, III	41.3	35.3	30.0	24.5
Orange County CC, III	44.2	36.6	29.5	24.7
Rockland CC, III	41.5	34.9	27.9	22.6
Schenectady County CC, III	37.8	29.9	24.8	—
Suffolk County CC				
Ammerman, III	47.2	37.6	28.2	—
Eastern, III	45.1	33.0	—	—
Western, III	42.7	32.7	30.5	—
Sullivan County CC, III	39.9	33.8	32.0	—
Tompkins Cortland CC, III	38.0	30.4	25.2	—
Westchester CC, III	58.8	51.5	45.1	—
Syracuse U, I	52.9	37.5	31.4	26.2
Utica C, IIB	37.1	31.0	25.1	—
Trocaire C, III	—	—	21.0	20.0
Union C, IIA	52.7	40.7	30.8	27.6
U of Rochester, I	60.4	42.5	36.4	—
Vassar C, IIB	54.8	39.1	30.7	26.2
Wagner C, IIA	34.8	29.8	23.0	20.0
Wells C, IIB	34.9	28.3	23.7	—

NORTH CAROLINA

Atlantic Christian C, IIB	28.5	24.7	22.3	—
Barber-Scotia C, IIB	—	23.4	21.9	—
Catawba C, IIB	32.1	27.7	22.5	18.3
Davidson C, IIB	46.1	37.4	28.2	—
Duke U, I	66.0	45.1	37.0	—
Elon C, IIB	32.3	30.5	25.7	20.2
Greensboro C, IIB	31.4	26.6	26.4	—
Guilford C, IIB	39.8	32.9	25.6	—
High Point C, IIB	35.9	29.8	25.1	—
Johnson C Smith U, IIB	32.9	27.4	23.7	21.8
Lenoir-Rhyne C, IIB	31.8	29.2	23.3	—
Livingstone C, IIB	—	22.5	20.6	18.3
Mars Hill C, IIB	28.4	25.5	21.3	—
Meredith C, IIB	35.3	30.4	26.9	23.6
NC Wesleyan C, IIB	30.1	25.3	23.7	—
Pfeiffer C, IIB	24.3	25.0	22.9	—
Queens C, IIB	35.5	26.0	23.5	20.1
Saint Andrews Presbyterian C, IIB	34.8	27.7	24.3	
Salem C, IIB	33.5	28.8	24.4	—
Shaw U, IIB	—	24.4	22.8	20.3
Southeastern Sem, IIA	32.3	—	—	
U of North Carolina				
Asheville, IIB	47.3	38.2	30.6	—
Chapel Hill, I	58.6	41.6	35.7	27.7
Charlotte, IIA	46.6	39.0	32.5	
Greensboro, I	53.4	38.1	32.4	25.8
Wilmington, IIB	45.1	36.9	31.5	—
Appalachian St C, IIA	42.0	35.8	31.1	23.9
East Carolina U, IIA	48.7	37.9	31.2	27.0
Elizabeth City St U, IIB	40.2	34.6	28.6	—
Fayetteville St U, IIB	46.4	37.2	31.0	—
NC A&T St U, IIA	44.6	37.9	33.5	27.1
NC Central U, IIA	45.7	37.7	32.8	31.6
NC Sch of Arts, IIB				34.2
North Carolina St U, I	57.4	41.6	35.9	28.0
Pembroke St U, IIB	45.1	36.4	29.0	
Western Carolina U, IIA	44.6	37.8	30.9	—
Winston-Salem St U, IIB	41.1	35.1	31.0	28.1
Wake Forest U, IIA	50.7	39.0	30.2	23.5
Wingate C, IIB	31.4	25.2	23.3	19.9

NORTH DAKOTA

ND St Bd of Higher Ed				
U of ND Main, I	38.4	32.0	27.5	22.4
Dickinson St U, IIB	31.5	26.1	25.8	22.2
Mayville St U, IIB	33.4	28.3	24.5	—
Minot St U, IIB	35.4	30.6	26.1	23.1
ND St U, IIA	38.4	31.1	28.1	19.0

OHIO

Air Force Inst of Tech, IIA	48.9	38.5	34.7	—
Antioch U, IIA	33.9	27.5	23.8	
Ashland C, IIB	32.8	29.2	25.1	18.6
Baldwin-Wallace C, IIB	38.3	32.3	24.9	—
Bluffton C, IIB	27.5	24.7	22.0	
Bowling Green St U				
Main, I	52.7	41.0	33.0	23.2
Firelands, III	—	40.3	31.7	26.8
Capital U, IIB	38.7	30.6	25.6	23.8
Case Western Reserve U, I	59.2	41.1	34.6	25.9
Clark St CC, III	—	32.0	29.9	24.1
Cleveland St U, IIA	54.2	40.8	33.3	26.1

OHIO—Continued

	Prof	Assoc Prof	Asst Prof	Inst
C of Mt Saint Joseph, IIB	29.6	29.9	24.5	20.9
C of Wooster, IIB	42.9	32.9	26.8	23.8
Defiance C, IIB	30.6	26.9	23.6	—
Denison U, IIB	45.1	35.4	27.4	23.9
Edison St CC, III	—	29.1	25.9	—
Findlay C, IIB	32.9	29.3	22.4	21.2
Heidelberg C, IIB	32.8	26.6	23.7	19.7
Jefferson Tech C, III	32.2	30.2	26.2	23.2
John Carroll U, IIA	42.8	35.7	30.3	23.6
Kent St U				
Main, I	51.7	39.7	32.4	24.7
Ashtabula, III	—	38.6	31.9	—
East Liverpool, III		—	30.7	—
Salem, III	—	—	29.9	—
Stark County, III	—	40.3	32.5	—
Trumbull, III	—	38.3	28.8	—
Tuscarawas, III	—	38.5	31.7	—
Kenyon C, IIB	49.7	38.3	28.3	24.9
Kettering C of Medical Arts, III	27.4	21.7	23.3	—
Lake Erie C, IIB	—	22.7	20.8	19.8
Lorain County CC, III	45.4	39.3	31.5	27.0
Lourdes C, IIB			—	20.2
Malone C, IIB	31.3	26.9	24.2	—
Marietta C, IIB	36.3	32.4	25.9	—
Miami U				
Oxford, I	53.7	40.7	33.4	25.5
Hamilton, III	—	39.5	31.7	24.7
Middletown, III	—	39.5	33.0	—
Mount Union C, IIB	38.0	30.6	26.6	20.9
Mount Vernon Nazarene C, IIB	29.1	25.7	23.4	—
Muskingum C, IIB	36.9	30.5	25.9	21.6
Oberlin C, IIB	48.9	36.5	30.7	—
Ohio Dominican C, IIB	36.1	29.9	25.3	—
Ohio Northern U, IIB	39.5	32.5	28.4	23.7
Ohio St U				
Main, I	60.8	44.0	36.8	26.0
Ag Tech Inst, IIB		33.3	29.2	25.4
Lima, IIB		39.0	31.2	—
Mansfield, IIB	—	34.7	29.5	—
Marion, IIB	—	38.8	28.8	—
Newark, IIB	—	36.4	33.4	—
Ohio U				
Athens, I	52.8	41.1	32.7	27.0
Belmont, III		—	34.7	—
Chillicothe, III	—	34.7	29.8	—
Lancaster, III	—	37.7	28.4	—
Zanesville, III	—	36.4	28.1	25.0
Ohio Wesleyan U, IIB	39.2	29.8	26.8	
Otterbein C, IIB	35.3	30.0	24.4	21.5
Rio Grande C, IIB	33.4	30.2	26.4	21.7
Shawnee St U, IIB	35.7	35.3	28.3	28.7
Southern St CC, III		28.7	26.6	20.9
Trinity Lutheran Sem, IIA	31.5	—	—	
U of Akron				
Main, I	52.1	39.2	34.2	28.4
Wayne General and Tech C, III	—	—	26.5	23.6
U of Cincinnati				
Main, I	57.4	43.1	34.2	25.3
Clermont, III	—	37.2	26.9	23.2
Raymond Walters, III	45.1	37.3	28.1	21.7
U of Dayton, IIA	45.5	38.6	30.4	18.8
U of Toledo, I	52.5	40.0	32.8	26.0
Urbana C, IIB	29.3	—	22.2	19.3
Ursuline C, IIB	30.1	23.0	23.2	22.7
Walsh C, IIB	32.4	27.7	23.9	—
Wilmington C, IIB	31.4	27.4	23.9	—
Wittenberg U, IIB	45.5	35.8	29.1	24.4
Wright St U				
Main, IIA	53.4	40.4	33.3	23.3
Lake, III		—	30.2	—
Xavier U, IIA	42.1	34.3	30.5	21.5
Youngstown St U, IIA	50.4	40.2	31.0	25.9

OKLAHOMA

Cameron U, IIB	36.8	32.5	27.4	22.1
Central St U, IIA	40.6	37.3	34.1	28.5
East Central U, IIB	38.3	33.9	29.8	24.1
Langston U, IIB	33.6	30.7	24.0	24.8
NE Okla St U, IIA	38.9	33.2	28.9	26.6
Oklahoma Christian C, IIB	34.9	30.4	25.1	19.7
Okla Panhandle St U, IIB	35.1	32.0	29.4	25.6
Oklahoma St U Main, I	45.6	35.9	30.4	24.7
Phillips U, IIB	26.6	23.8	20.9	—
SE Okla St U, IIA	35.7	32.9	28.0	23.5
U of Oklahoma, I	46.6	36.0	29.9	18.7
U of Science and Arts of Oklahoma, IIB	37.1	33.2	29.0	24.9
U of Tulsa, IIA	50.8	37.4	30.4	20.8

OREGON

George Fox C, IIB	27.7	25.3	20.9	—
Lewis and Clark C, IIB	45.6	32.9	24.2	—
Linfield C, IIB	32.1	26.5	23.1	—
Multnomah Sch of the Bible, IIB	21.6	—	—	—
Ore St Sys of Higher Ed				
Eastern Ore St C, IIB	39.5	33.5	28.0	—
Oregon Inst of Tech, IIB	39.5	33.3	29.0	25.6
Oregon St U, I	44.9	36.4	30.3	23.0
Portland St U, IIA	41.7	33.3	29.3	21.1
Southern Ore St C, IIA	37.4	30.5	25.0	22.1
U of Oregon, I	45.2	34.4	28.8	22.0
Western Ore St C, IIA	34.6	31.3	25.7	19.6
Reed C, IIB	46.2	35.3	28.6	
U of Portland, IIA	39.9	31.9	27.0	
Western Conservative Baptist Sem, IIA	27.0	—	21.9	
Western Sts Chiropractic C, IIA	—	26.1	23.3	—
Willamette U, IIA	46.3	34.1	28.5	—

PENNSYLVANIA

Acad of the New Church, IIB	—	—	34.2	30.5
Albright C, IIB	41.7	34.1	28.3	26.5
Allegheny C, IIB	44.9	33.9	26.5	22.0
Allentown C of Saint Francis De Sales, IIB	35.6	30.5	28.7	—
Alvernia C, IIB	—	21.1	21.5	17.7
Beaver C, IIA	40.3	30.0	26.1	—
Bryn Mawr C, IIA	49.3	39.1	30.5	20.5
Bucknell U, IIA	52.7	39.7	32.9	—
Bucks County CC, III	39.8	35.0	25.0	22.7
Cabrini C, IIB	36.7	31.1	29.1	—
Carlow C, IIB	36.0	26.4	21.5	
Carnegie Mellon U, I	67.0	46.9	40.5	—
Cedar Crest C, IIB	33.1	27.5	23.5	
Chatham C, IIB	38.5	31.8	25.0	—
Chestnut Hill C, IIB	38.9	25.5	20.5	—
C Misericordia, IIB	—	28.2	23.5	18.8
CC of Allegheny Co, III	37.8	30.7	27.7	18.5
CC of Philadelphia, III	46.9	41.6	35.8	—

PENNSYLVANIA—Continued

	Prof	Assoc Prof	Asst Prof	Inst
Delaware Valley C of Science and Ag, IIB	37.7	32.8	28.5	25.4
Dickinson C, IIB	49.5	38.1	30.5	25.9
Drexel U, I	56.0	40.3	36.5	24.5
Duquesne U, IIA	40.1	31.8	28.7	21.3
Eastern Baptist Theol Sem, IIB	36.4	—		
Eastern C, IIB	34.1	27.3	26.6	—
Elizabethtown C, IIB	41.5	34.8	27.5	—
Franklin and Marshall C, IIB	54.7	40.4	29.6	27.5
Gannon U, IIA	38.6	33.6	29.7	23.3
Geneva C, IIB	30.5	25.9	22.1	
Gettysburg C, IIB	50.2	37.9	29.5	29.4
Harrisburg Area CC, III	40.1	32.1	26.4	23.1
Haverford C, IIB	54.0	41.8	32.3	26.7
Immaculata C, IIB	—	33.1	—	—
Juniata C, IIB	38.1	30.6	26.7	—
Keystone JC, III	30.1	24.9	20.6	15.2
King's C, IIB	38.6	32.7	26.6	—
Lafayette C, IIB	54.8	41.3	31.1	28.2
Lancaster Bible C, IIB	—	—	19.7	—
La Roche C, IIB	—	28.2	25.7	
La Salle U, IIB	46.2	37.7	30.7	23.7
Lebanon Valley C, IIB	33.8	32.1	27.1	—
Lehigh U, I	57.2	42.0	36.0	—
Lincoln U, IIB	37.6	31.2	26.3	23.5
Lutheran Theol Sem Gettysburg, IIA	24.9	—	—	—
Lycoming C, IIB	36.6	31.5	25.6	23.7
Marywood C, IIA	34.6	30.1	25.4	—
Mercyhurst C, IIB	34.3	29.5	24.1	20.8
Messiah C, IIB	38.5	32.7	27.3	26.4
Montgomery Co CC, III	42.2	36.1	28.7	—
Moravian C, IIB	38.5	31.0	25.8	—
Muhlenberg C, IIB	47.0	36.1	29.7	23.6
Neumann C, IIB	—	26.3	24.0	20.8
Northampton CC, III	35.5	31.0	28.1	—
Peirce JC, III	33.0	28.3	—	—
Pennsylvania St U				
Main, I	58.0	41.9	34.4	21.5
IIA campuses	50.0	40.9	34.7	30.2
III campuses	45.6	36.0	29.9	24.1
Philadelphia C of Pharmacy & Sci, IIB	49.9	37.1	30.4	25.3
Philadelphia C of Textiles and Sci, IIB	46.0	36.0	30.8	—
Pittsburgh Theol Sem, IIA	42.1	—	—	
Point Park C, IIB	33.6	27.0	23.2	—
Reading Area CC, III	30.6	24.1		—
Rosemont C, IIB	35.9	31.4	23.6	—
Saint Joseph's U, IIB	46.3	36.6	31.5	23.0
Saint Vincent C, IIB	36.7	29.7	24.3	22.2
Seton Hill C, IIB	34.9	26.5	22.2	—
Spring Garden C, IIB	35.4	27.2	25.6	
St Sys of Higher Ed				
Clarion U of Pa Main, IIA	47.7	38.6	31.7	23.4
East Stroudsburg U of Pa, IIB	47.5	38.8	31.2	25.1
Indiana U of Pa, IIA	47.1	38.8	30.9	21.5
Lock Haven U of Pa, IIB	47.7	39.2	30.8	21.8
Shippensburg U of Pa, IIA	47.3	38.4	31.5	25.4
Susquehanna U, IIB	42.3	33.6	29.0	
Swarthmore C, IIB	55.7	40.7	32.4	—
Temple U, I	52.9	41.6	34.3	28.4
Thiel C, IIB	33.3	27.6	23.5	—
Thomas Jefferson U, IIB	—	38.8	31.7	27.5
U of the Arts, IIB	31.7	27.0	21.5	—
U of Pennsylvania, I	68.4	49.3	40.5	—
U of Pittsburgh				
Main, I	57.3	41.1	33.8	21.5
Bradford, IIB	38.3	33.3	28.5	21.1
Greensburg, IIB	38.1	32.2	27.9	19.8
Johnstown, IIB	43.1	35.6	27.6	23.8
Titusville, III		29.9	23.4	19.1
U of Scranton, IIA	41.4	34.7	30.7	24.9
Ursinus C, IIB	41.9	34.2	28.0	—
Villa Maria C, IIB	—	24.2	20.5	—
Villanova U, IIA	53.9	41.5	34.1	24.3
Washington and Jefferson C, IIB	40.7	34.8	28.4	22.5
Waynesburg C, IIB	29.1	26.6	21.8	22.8
Westminster C, IIB	36.7	30.1	25.1	—
Westminster Theol Sem, IIA	32.1	—	—	
Westmoreland Co CC, III	34.6	32.9	27.8	—
Widener U, IIA	48.5	41.2	32.3	26.8
Wilkes C, IIA	36.5	30.7	26.6	—
Wilson C, IIB	—	25.5	20.7	—
York C of Pa, IIB	47.7	40.2	31.1	25.0

RHODE ISLAND

Brown U, I	64.0	41.6	34.5	—
Bryant C, IIB	50.5	45.9	36.1	—
CC of Rhode Island, III	38.2	31.5	26.3	19.6
Providence C, IIA	47.8	40.0	31.7	27.4
Rhode Island C, IIA	43.0	37.0	31.3	26.4
RI Sch of Design, IIB	44.4	34.5	28.8	
Salve Regina Newport C, IIA	39.5	32.5	26.7	23.9
U of Rhode Island, I	51.7	39.8	33.9	36.6

SOUTH CAROLINA

Benedict C, IIB	30.4	22.9	19.6	17.5
Central Wesleyan C, IIB	23.5	21.2	17.2	—
Citadel, IIA	43.1	34.6	28.8	—
Clemson U, I	50.4	37.7	32.1	20.3
Coker C, IIB	30.7	28.2	24.1	—
C of Charleston, IIB	41.6	36.5	28.6	22.3
Columbia Bible C, IIA	24.5	24.0	20.9	18.4
Columbia C, IIB	33.9	29.2	26.0	22.0
Converse C, IIB	36.3	32.6	26.7	—
Francis Marion C, IIB	40.5	32.1	27.4	20.3
Furman U, IIB	44.6	34.1	27.7	22.6
Lander C, IIB	38.4	33.6	27.5	—
Limestone C, IIB	22.8	22.6	21.4	—
Newberry C, IIB	27.8	25.0	22.2	18.4
North Greenville C, III	26.2	—	21.2	16.8
Presbyterian C, IIB	37.4	29.5	25.7	22.7
U of South Carolina				
Columbia, I	51.2	38.8	32.8	23.0
Aiken, IIB	37.8	31.5	26.4	20.5
Beaufort, III	—	29.7	—	—
Coastal Carolina C, IIB	38.6	31.9	28.3	21.8
Lancaster, III	—	31.0	26.3	—
Salkehatchie, III	—	—	26.0	—
Spartanburg, IIB	37.9	32.5	27.0	23.7
Sumter, III	—	31.1	28.1	—
Winthrop C, IIA	42.7	35.1	29.0	21.6
Wofford C, IIB	40.1	32.3	27.8	—

SOUTH DAKOTA

Augustana C, IIB	33.5	29.3	25.0	22.0
Black Hills St C, IIB	34.5	30.1	25.7	20.7

SOUTH DAKOTA—Continued

	Prof	Assoc Prof	Asst Prof	Inst
Dakota St C, IIB	36.4	30.7	25.8	21.6
Mount Marty C, IIB	28.5	22.7	21.5	19.1
Northern St C, IIA	36.7	29.1	24.9	20.7
South Dakota St U, IIA	35.9	30.1	26.0	22.0
U of South Dakota, I	40.2	30.0	27.2	19.0

TENNESSEE

Bethel C, IIB	24.9	22.4	21.4	—
Bryan C, IIB	24.5	22.7	19.1	—
Carson-Newman C, IIB	32.3	26.8	24.2	—
Christian Brothers C, IIB	37.9	29.4	26.4	—
Crichton C, IIB	—	—	23.3	—
David Lipscomb C, IIB	37.0	30.4	26.3	22.3
Freed-Hardeman C, IIB	33.3	28.1	25.1	18.7
Hiwassee C, III	20.2	19.4	18.8	—
King C, IIB	29.0	23.1	—	—
Knoxville C, IIB	26.8	—	19.7	17.0
Lambuth C, IIB	26.6	25.2	21.8	
Lane C, IIB	25.0	22.3	19.6	17.3
Maryville C, IIB	27.6	24.5	21.2	19.2
Milligan C, IIB	30.2	26.0	23.6	
Pellissippi St Tech CC, III	—	29.2	25.9	21.9
Rhodes C, IIB	43.3	34.5	28.0	—
Southern C of Seventh-Day Adventists, IIB	22.3	21.3	21.0	—
St U and CC Sys of Tenn				
Austin Peay St C, IIA	39.3	30.3	25.5	20.2
East Tenn St U, IIA	42.0	36.7	29.7	23.9
Middle Tenn St U, IIA	46.8	37.2	30.0	23.3
Tennessee St U, IIA	41.9	34.4	29.1	21.9
Tennessee Tech U, IIA	45.0	36.5	30.7	21.7
Cleveland St CC, III	33.6	28.6	25.0	—
Dyersburg St CC, III	31.8	28.3	24.3	22.0
Jackson St CC, III	33.0	29.2	25.1	21.7
Nashville St Tech Inst, III	36.4	30.7	29.9	22.9
Roane St CC, III	34.9	28.3	24.5	20.4
Shelby St CC, III	31.0	25.0	22.2	—
St Tech Inst Memphis, III	36.5	29.8	25.8	22.8
Tri-Cities St Tech Inst, III		28.5	27.8	23.6
Volunteer St CC, III	33.0	28.0	26.2	20.7
Tomlinson C, III	24.2			—
Tusculum C, IIB	24.9	—	20.2	—
Union U, IIB	31.8	27.2	23.8	21.4
U of the South, IIB	44.9	32.7	27.6	—
U of Tennessee				
Chattanooga, IIA	42.5	35.3	29.3	27.3
Inst of Ag, IIA	47.5	39.4	33.7	—
Knoxville, I	50.7	37.3	32.0	23.3
Martin, IIB	39.0	32.0	28.7	20.3
Memphis, I	47.8	38.6	31.4	26.0
Vanderbilt U, I	63.2	41.2	35.5	38.4

TEXAS

Abilene Christian U, IIA	34.5	29.8	26.4	20.0
Alamo CC District				
St Philip's C, III	38.9	32.6	30.2	27.6
San Antonio C, III	38.7	34.4	30.5	26.7
Angelo St U, IIB	41.2	35.6	30.7	22.6
Austin C, IIB	42.5	32.2	27.7	—
Baylor U, I	49.7	38.9	33.0	—
Brazosport C, III	43.9	31.9	26.5	—
Del Mar C, III	39.7	33.7	29.7	25.3
East Texas Baptist U, IIB	28.5	26.3	23.1	—
East Texas St U, I	40.1	32.1	28.3	25.0
E Tex St U Texarkana, IIB	41.1	35.8	—	—
Episcopal Theol Sem of the Southwest, IIB	31.2			
Hardin-Simmons U, IIA	36.4	29.5	26.8	24.9
Incarnate Word C, IIB	33.1	29.8	22.5	—
Jarvis Christian C, IIB	30.0	24.1	20.1	17.0
Lamar U, IIA	42.5	34.3	29.7	24.9
Lubbock Christian U, IIB	25.7	21.8	—	—
Odessa C, III	44.0	32.3	30.5	27.1
Our Lady of the Lake U, IIA	34.7	29.5	25.9	20.3
Pan American U, IIA	44.0	35.9	29.2	22.8
Rice U, I	62.5	43.8	35.1	25.9
Saint Edward's U, IIB	38.3	30.9	26.0	
Saint Mary's U, IIA	47.0	36.0	31.7	[illegible]
Sam Houston St U, IIA	42.1	36.0	30.6	26.8
Schreiner C, IIB	32.7	—	23.2	20.1
Southern Methodist U, I	56.8	38.8	33.0	
Southwest Texas St U, IIA	42.0	35.1	28.3	22.8
SW Assemblies of God C, IIB	26.4	—	20.6	—
Southwestern U, IIB	50.4	38.4	31.0	—
Stephen F Austin St U, IIA	42.1	34.5	28.9	23.8
Sul Ross St U, IIB	34.9	29.1	23.9	—
Tarrant County JC, III	34.3	33.0	28.5	26.8
Texas A&M U Sys				
Main, I	55.8	41.3	33.7	24.5
Galveston, IIB	44.7	32.3	21.5	
Prairie View A&M U, IIA	39.7	34.0	30.8	24.9
Tarleton St U, IIA	39.3	33.4	28.0	21.5
Texas Christian U, I	52.9	39.4	32.9	—
Texas Lutheran C, IIB	36.5	31.3	26.2	—
Texas Southern U, I	47.9	34.5	27.0	23.6
Texas Tech U, I	49.6	36.1	31.4	20.2
Texas Wesleyan U, IIB	31.8	28.3	27.9	—
Texas Woman's U, I	42.6	33.5	28.2	24.5
Trinity U, IIA	53.2	37.6	29.9	—
U of Dallas, IIA	35.5	33.6	30.3	—
U of Houston				
U Park, I	56.4	40.3	33.4	24.0
Clear Lake, IIA	46.4	38.9	34.1	—
Downtown, IIB	45.9	35.8	30.1	
Victoria, IIB	—	39.3	32.3	—
U of Saint Thomas, IIA	29.3	28.0	23.2	—
U of Texas				
Austin, I	61.9	40.8	35.9	27.3
Arlington, I	50.1	37.2	32.5	—
Dallas, I	54.4	39.5	36.4	—
Permian Basin, IIA	40.0	33.0	28.9	—
San Antonio, IIA	44.9	38.5	32.1	—
Tyler, IIB	45.4	35.9	30.6	24.9
U of North Texas, I	45.5	36.9	31.5	23.8
U Sys of South Texas				
Corpus Christi St U, IIB	40.2	32.4	27.1	25.2
Laredo St U, IIB	40.2	34.3	31.1	—
West Texas St U, IIA	39.4	32.2	27.0	22.6
Western Texas C, III	31.5	26.5	25.7	22.8

UTAH

Utah Higher Ed Sys				
U of Utah, I	47.9	34.3	31.0	26.3
Utah St U, I	41.5	33.0	27.3	23.6
Southern Utah St C, IIB	34.8	27.7	23.8	21.6
Weber St C, IIA	35.4	29.0	26.1	20.1
Salt Lake CC, III	30.1	26.7	23.7	23.0
Snow C, III	33.3	28.2	25.6	21.8
Westminster C Salt Lake City, IIB	29.8	26.6	24.7	

VERMONT

	Pruf	Assoc Prof	Asst Prof	Inst
C of Saint Joseph, IIB		—	21.5	—
Green Mountain C, IIB	32.0	—	23.6	—
Middlebury C, IIB	55.7	40.3	33.9	32.7
Norwich U, IIA	38.9	32.6	26.9	22.1
Saint Michael's C, IIB	41.3	33.8	25.8	—
U of Vermont, I	52.7	38.8	33.4	—
Vermont St C's Sys				
Castleton St C, IIB	35.6	30.5	25.6	22.6
Lyndon St C, IIB	35.3	30.6	25.5	—
Vermont Tech C, III	29.7	25.2	26.4	

VIRGINIA

Averett C, IIB	30.7	26.7	25.1	—
Bridgewater C, IIB	35.2	29.2	24.8	—
Christopher Newport C, IIB	42.6	37.4	33.1	26.8
C of William and Mary, I	55.5	45.3	35.2	28.8
Richard Bland C, III	38.8	31.9	—	—
E Mennonite C & Sem, IIB	27.3	24.2	20.8	16.1
Emory and Henry C, IIB	34.8	29.3	26.9	—
George Mason U, IIA	63.5	43.9	36.8	30.1
Hampden-Sydney C, IIB	44.2	35.3	27.5	
Hampton U, IIA	40.6	31.0	24.8	19.4
Hollins C, IIB	44.3	35.4	27.1	—
James Madison U, IIA	46.2	39.2	33.4	25.6
Liberty U, IIA	33.1	26.0	22.7	16.3
Longwood C, IIB	45.3	36.4	26.5	28.4
Lynchburg C, IIA	39.1	32.5	26.8	20.4
Mary Baldwin C, IIB	36.0	27.9	24.5	—
Mary Washington C, IIB	43.6	38.4	30.8	—
Marymount U, IIB	41.5	33.3	28.4	—
Norfolk St U, IIA	45.6	40.1	32.9	25.1
Old Dominion U, IIA	54.2	40.3	34.3	25.1
Presbyterian Sch of Christian Ed, IIA	36.0	—		
Protestant Episcopal Theol Sem in Va, IIB	30.3	—	—	
Radford U, IIA	45.9	37.5	31.7	24.2
Randolph-Macon C, IIB	41.4	33.6	27.0	—
Randolph-Macon Woman's C, IIB	41.3	32.2	26.5	—
Roanoke C, IIB	41.0	33.1	27.7	—
Shenandoah C and Conservatory, IIB	30.5	26.3	22.8	—
Sweet Briar C, IIB	42.8	34.2	28.3	—
U of Richmond, IIA	53.6	41.9	33.0	
U of Virginia, I	65.9	44.5	35.5	25.7
Clinch Valley C, IIB	40.2	31.4	27.5	—
Va Commonwealth U, I	53.8	43.9	36.2	28.2
Virginia CC Sys				
Blue Ridge CC, III	—	35.5	29.9	38.7
Central Virginia CC, III	40.2	36.4	30.7	—
Dabney S Lancaster CC, III	—	37.1	30.8	25.1
Danville CC, III	37.1	34.7	29.1	—
Eastern Shore CC, III	—	—	—	23.5
Germanna CC, III	—	34.1	28.9	24.4
J Sargeant Reynolds CC, III	38.5	34.7	30.2	27.0
John Tyler CC, III	37.3	33.6	29.4	27.1
Lord Fairfax CC, III	—	31.2	28.0	—
Mountain Empire CC, III	—	34.2	28.7	26.0
New River CC, III	40.8	35.9	28.8	25.4
Northern Va CC, III	40.4	37.1	31.5	27.5
Patrick Henry CC, III	—	33.1	29.2	25.6
Paul D Camp CC, III	—	32.6	28.3	—
Piedmont Va CC, III	37.3	32.5	28.1	23.2
Rappahannock CC, III	—	36.3	29.1	—
Southside Va CC, III	—	30.7	29.2	23.8
Southwest Va CC, III	38.1	36.2	31.3	26.9
Thomas Nelson CC, III	40.1	34.5	30.8	25.5
Tidewater CC, III	36.2	33.1	28.7	25.0
Va Highlands CC, III	—	34.4	28.7	—
Virginia Western CC, III	40.5	35.3	30.7	26.3
Wytheville CC, III	38.0	34.5	28.9	27.5
Virginia Intermont C, IIB	—	21.7	20.5	—
Virginia Military Inst, IIB	46.4	41.1	31.9	—
Va Polytechnic Inst and St U, I	59.9	42.6	36.5	24.9
Virginia St U, IIA	41.7	36.0	32.4	27.6
Virginia Union U, IIB	31.4	24.7	16.9	19.5
Virginia Wesleyan C, IIB	41.9	33.5	25.6	26.1
Washington and Lee U, IIB	49.9	37.8	30.4	—

WASHINGTON

Central Washington U, IIA	38.7	32.4	27.0	—
Eastern Wash U, IIA	36.6	30.7	26.3	19.9
Pacific Lutheran U, IIA	39.9	32.4	27.1	
Peninsula C, III			32.1	26.5
Saint Martin's C, IIB	—	24.5	22.4	—
Seattle Pacific U, IIA	36.3	30.3	25.5	21.5
Seattle U, IIA	39.4	32.6	29.2	—
U of Puget Sound, IIA	44.5	34.9	28.9	24.1
U of Washington, I	52.8	37.3	33.8	27.1
Washington St U, I	45.6	34.4	31.2	22.3
Western Wash U, IIA	40.9	33.7	30.7	—
Whitman C, IIB	44.7	35.8	29.3	26.6
Whitworth C, IIB	36.7	30.0	24.3	20.3

WEST VIRGINIA

Alderson Broaddus C, IIB	29.6	23.3	20.0	18.0
Bethany C, IIB	31.3	26.5	24.0	20.2
Bluefield St C, IIB	32.9	26.6	22.0	18.5
Concord C, IIB	33.0	28.2	22.4	19.9
Davis & Elkins C, IIB	31.2	26.9	22.0	20.4
Fairmont St C, IIB	35.1	29.2	24.3	20.5
Glenville St C, IIB	34.0	26.8	28.7	20.2
Marshall U, IIA	38.9	32.7	24.2	18.6
Parkersburg CC, III	31.3	25.9	21.4	17.3
Shepherd C, IIB	35.4	29.4	25.5	—
Southern WVa CC, III	—	27.9	22.2	18.2
West Liberty St C, IIB	34.8	27.9	23.5	19.6
West Virginia C of Graduate Studies, IIA	39.7	34.0	28.0	—
WVa Inst of Tech, IIB	34.4	29.0	25.0	21.1
WVa Northern CC, III	29.1	25.8	19.7	—
West Virginia St C, IIB	34.1	28.4	23.7	18.8
West Virginia U, I	43.0	34.8	28.0	20.3
Potomac St C, III	35.6	27.3	20.9	17.8
WVa Wesleyan C, IIB	30.1	27.0	24.3	—
Wheeling Jesuit C, IIB	29.8	25.2	21.2	19.5

WISCONSIN

Alverno C, IIB	—	29.2	23.8	19.4
Beloit C, I[illegible]	38.4	33.3	25.5	—
Cardinal Stritch C, IIB	29.3	26.8	24.9	21.0
Carroll C, IIB	37.8	33.0	29.2	
Carthage C, IIB	30.8	25.4	—	—
Concordia C, IIB	—	24.4	22.8	—
Edgewood C, IIB	29.0	25.9	23.8	—
Lakeland C, IIB	30.8	26.1	23.8	—
Lawrence U, IIB	46.5	36.3	29.1	26.7

Continued on Following Page

FACT FILE: Average Salaries of Full-Time Faculty Members at 1,600 Institutions—Continued

WISCONSIN—Continued

	Prof	Assoc Prof	Asst Prof	Inst
Marquette U, I	55.6	41.2	34.5	
Milwaukee Sch of Engineering, IIB	38.2	29.1	28.7	—
Mount Mary C, IIB	30.4	27.8	23.1	—
Northland C, IIB	26.9	22.4	—	
Ripon C, IIB	42.1	31.6	25.2	—
Saint Norbert C, IIB	42.8	34.9	27.3	—
U of Wisconsin				
Madison, I	53.1	39.1	34.5	—
Milwaukee, I	49.6	36.8	33.6	—
Eau Claire, IIA	40.6	32.5	28.1	25.8
Green Bay, IIA	41.2	34.0	28.6	—
La Crosse, IIA	41.2	35.9	30.4	28.2
Oshkosh, IIA	43.2	36.4	30.8	25.3
Parkside, IIA	44.5	33.4	31.0	
Platteville, IIA	40.7	34.0	29.9	—
River Falls, IIA	39.5	30.8	28.5	—
Stevens Point, IIA	41.0	33.4	27.7	24.5
Stout, IIA	39.6	33.1	27.8	26.2
Superior, IIA	42.6	33.2	27.3	—
Whitewater, IIA	41.7	34.3	31.2	27.1
Centers, III	38.3	31.9	26.0	22.1

WISCONSIN—Continued

	Prof	Assoc Prof	Asst Prof	Inst
Viterbo C, IIB	34.1	28.5	24.1	21.9

WYOMING

	Prof	Assoc Prof	Asst Prof	Inst
Northwest CC, III	—	32.6	26.3	21.4
U of Wyoming, I	46.1	35.6	31.5	—
Western Wyoming C, III	37.6	34.1	30.1	23.6

GUAM

	Prof	Assoc Prof	Asst Prof	Inst
U of Guam, IIB	48.9	38.7	31.3	24.6

PUERTO RICO

	Prof	Assoc Prof	Asst Prof	Inst
Caribbean U C, IIB			11.0	10.2
Conservatory of Music of Puerto Rico, IIB		17.2	16.0	10.2
U of Puerto Rico				
Arecibo, IIB	24.0	20.6	17.0	14.7
Humacao U C, IIB	32.2	25.5	20.7	17.3
Mayaguez, IIB	28.2	22.0	18.6	15.3
Ponce, III	25.7	19.9	17.0	14.8

Institutions Without Academic Ranks

ALABAMA

Alexander City St JC, IV	30.1
Brewer St JC, IV	29.7
Enterprise St JC, IV	30.7
Gadsden St JC, IV	28.0
George C Wallace St CC Selma, IV	30.5
Jefferson Davis St JC, IV	29.2
Jefferson St JC, IV	32.1
John C Calhoun St CC, IV	30.4
J F Drake St Tech C, IV	32.7
Lawson St CC, IV	29.5
Lurleen B Wallace St JC, IV	28.8

ALASKA

Prince William Sound CC, IV	36.2

ARIZONA

Arizona Western C, IV	32.3
Central Arizona C, IV	33.6
Cochise C, IV	29.7
Eastern Arizona C, IV	33.5
Maricopa County CC Dist, IV	40.0
Northland Pioneer C, IV	30.1
Pima County CC, IV	33.1
Yavapai C, IV	34.2

ARKANSAS

Garland County CC, IV	26.0
Southern Arkansas U El Dorado, IV	23.6

CALIFORNIA

Antelope Valley C, IV	39.6
California Inst of the Arts, IIA	31.0
Fresno Pacific C, IIB	26.5
Grossmont / Cuyamaca CC Dist, IV	40.8
Menlo C, IIB	38.5
Mt San Jacinto C, IV	36.6
Redwoods CC Dist, IV	38.9
San Diego CC Dist, IV	42.0
San Joaquin Delta C, IV	44.2
Santa Barbara City C, IV	37.1
Taft C, IV	44.1
West Hills CC Dist, IV	40.0
Woodbury U, IIA	27.9

COLORADO

Arapahoe CC, IV	28.0
Front Range CC, IV	28.6
Morgan CC, IV	25.1
Northeastern JC, IV	25.2
Otero JC, IV	28.9
Pikes Peak CC, IV	29.5

CONNECTICUT

Hartford Sem, IIA	43.7

DELAWARE

Delaware Tech and CC	
Southern, IV	32.7

DELAWARE—Continued

Delaware Tech and CC	
Stanton-Wilmington, IV	31.8
Terry, IV	32.7

FLORIDA

Daytona Beach CC, IV	26.6
Florida CC Jacksonville, IV	35.3
Florida Keys CC, IV	25.5
Lake City CC, IV	25.1
Lake-Sumter CC, IV	27.5
Polk CC, IV	24.2
Santa Fe CC, IV	29.4
Seminole CC, IV	29.9
Tallahassee CC, IV	36.3
Valencia CC, IV	33.9

GEORGIA

Truett McConnell C, IV	21.3
Young Harris C, IV	26.9

HAWAII

U of Hawaii	
Honolulu CC, IV	32.7
Kapiolani CC, IV	33.2
Kauai CC, IV	31.6
Leeward CC, IV	34.2
Maui CC, IV	32.8
Windward CC, IV	31.9

IDAHO

North Idaho C, IV	27.9
Northwest Nazarene C, IIB	25.0

ILLINOIS

Blackburn U, IIB	28.1
Chicago C of Commerce, IV	19.3
C of Lake County, IV	44.1
Governors St U, IIA	34.5
Illinois Eastern CC's, IV	25.0
Illinois Valley CC, IV	31.6
John A Logan C, IV	31.8
John Wood CC, IV	26.5
Joliet JC, IV	38.3
Kaskaskia C, IV	28.5
Lincoln C, IV	25.2
McHenry County C, IV	32.5
Morrison Inst of Tech, IV	19.3
Morton C, IV	37.7
Parkland C, IV	36.2
Prairie St C, IV	33.6
Saint Augustine C, III	20.5
Southeastern Illinois C, IV	30.3
Springfield C, IV	20.3
State CC, IV	27.4

IOWA

Eastern Iowa CC Dist, IV	26.1
Indian Hills CC, IV	25.4

IOWA—Continued

North Iowa Area CC, IV	31.6
Western Iowa Tech CC, IV	25.9

KANSAS

Allen County CC, IV	26.3
Barton County CC, IV	24.6
Butler County CC, IV	27.7
Central C, IV	16.5
Cloud County CC, IV	32.5
Coffeyville CC, IV	27.8
Colby CC, IV	27.3
Cowley County CC, IV	30.7
Dodge City CC, IV	32.2
Fort Scott CC, IV	29.7
Garden City CC, IV	29.4
Highland CC, IV	24.2
Hutchinson CC, IV	29.0
Independence CC, IV	30.1
Johnson County CC, IV	35.3
Kansas City Kansas CC, IV	31.4
Labette CC, IV	37.2
Neosho County CC, IV	33.3
Pratt CC, IV	29.3
Seward County CC, IV	24.2

KENTUCKY

Midway C, IV	21.1

MAINE

Eastern Maine Voc-Tech Inst, IV	27.4
Southern Maine Voc-Tech Inst, IV	26.8

MARYLAND

Peabody Inst of Johns Hopkins U, IIB	34.0
Saint John's C, IIB	32.8

MICHIGAN

Charles S Mott CC, IV	39.1
Grand Rapids JC, IV	37.6
Lake Michigan C, IV	28.9
Mid Michigan CC, IV	26.3
Montcalm CC, IV	31.1
Schoolcraft C, IV	40.9
Washtenaw CC, IV	40.8

MINNESOTA

Anoka Ramsey CC, IV	39.0
Austin CC, IV	38.9
Bethany Lutheran C, IV	26.8
Brainerd CC, IV	35.2
Fergus Falls CC, IV	35.7
Hibbing CC, IV	33.8
Inver Hills CC, IV	38.7
Itasca CC, IV	34.1
Lakewood CC, IV	39.4
Mesabi CC, IV	37.5
Minneapolis CC, IV	38.0
Normandale CC, IV	37.5
North Hennepin CC, IV	37.9
Northland CC, IV	35.4
Rainy River CC, IV	33.5
Rochester CC, IV	37.4
Vermillion CC, IV	35.2
Willmar CC, IV	36.9
Worthington CC, IV	36.2

MISSOURI

Crowder C, IV	21.9
East Central C, IV	26.7
Jefferson C, IV	26.5
Kemper Military Sch and C, IV	16.9
Metropolitan CC Sys, IV	31.9
Mineral Area C, IV	26.5
Moberly Area JC, IV	21.6
North Central Missouri C, IV	23.8
State Fair CC, IV	22.1
Stephens C, IIB	22.7
Three Rivers CC, IV	23.2

MONTANA

Miles CC, IV	25.2

NEBRASKA

Central CC, IV	20.9
Grace C of the Bible, IIB	16.2
Mid-Plains Tech CC Area, IV	25.9
Northeast CC, IV	23.8
Southeast CC, IV	24.5
Western Nebraska CC, IV	23.5

NEW MEXICO

New Mexico JC, IV	28.6
Saint John's C, IIB	31.9

NEW YORK

Friends World C, IIB	22.1
Sarah Lawrence C, IIB	41.2

NORTH CAROLINA

Alamance CC, IV	25.4
Anson CC, IV	20.3
Asheville Buncombe Tech CC, IV	26.9
Beaufort County CC, IV	23.1
Bladen CC, IV	21.1
Blue Ridge CC, IV	25.7
Brunswick Tech C, IV	23.3
Caldwell CC and Tech Inst, IV	25.7
Cape Fear Tech Inst, IV	27.6
Carteret CC, IV	23.0
Catawba Valley Tech C, IV	27.2
Central Carolina Tech C, IV	25.2
Central Piedmont CC, IV	29.5
Cleveland CC, IV	23.2
Coastal Carolina CC, IV	26.6
C of the Albemarle, IV	25.1
Craven CC, IV	26.2
Davidson County CC, IV	30.8
Durham Tech Inst, IV	26.7
Edgecombe Tech C, IV	23.8
Fayetteville Tech CC, IV	27.3
Forsyth Tech C, IV	28.5
Gaston C, IV	26.5
Guilford Tech CC, IV	24.7
Halifax CC, IV	21.0
Haywood Tech C, IV	24.2
Isothermal CC, IV	24.6
James Sprunt CC, IV	22.5
Johnston CC, IV	22.4
Lees-McRae C, IV	21.7
Lenoir CC, IV	24.6
Martin CC, IV	24.8
Mayland CC, IV	23.5
McDowell Tech CC, IV	21.8
Mitchell CC, IV	23.9
Montgomery Tech C, IV	20.7
Montreat-Anderson C, IV	23.7
Nash CC, IV	26.0
Pamlico Tech C, IV	22.3
Piedmont Tech C, IV	22.9
Pitt CC, IV	26.1
Randolph Tech C, IV	24.3
Richmond CC, IV	26.9
Roanoke-Chowan Tech C, IV	24.1
Robeson CC, IV	24.9
Rockingham CC, IV	28.9
Rowan Tech C, IV	27.9
Sampson Tech C, IV	23.2
Sandhills CC, IV	28.3
Southeastern CC, IV	23.9
Southwestern Tech C, IV	23.2
Stanly Tech C, IV	25.7
Surry CC, IV	25.5
Tri-County CC, IV	20.6
Vance-Granville CC, IV	23.2
Wake Tech C, IV	26.0
Wayne CC, IV	23.5
Western Piedmont CC, IV	24.7
Wilkes CC, IV	27.5
Wilson County Tech Inst, IV	25.8

NORTH DAKOTA

Bismarck St CC, IV	28.1
North Dakota St C of Science, IV	26.6
North Dakota St U Bottineau, IV	25.9
U of North Dakota	
Lake Region, IV	25.1
Williston, IV	27.9

OHIO

Belmont Tech C, IV	27.4
Central Ohio Tech C, IV	25.5
Cincinnati Tech C, IV	28.2
Columbus St CC, IV	26.4
Cuyahoga CC Dist, IV	39.2
Hocking Tech C, IV	29.2
Lakeland CC, IV	38.8
Marion Tech C, IV	26.4
Terra Tech C, IV	26.9

OKLAHOMA

Bartlesville Wesleyan C, IIB	19.7

OKLAHOMA—Continued

Eastern Oklahoma St C, IV	27.1
Rose St C, IV	28.4
Seminole JC, IV	26.0

OREGON

Clackamas CC, IV	30.7
Pacific Northwest C of Art, IIB	19.3
Portland CC, IV	32.3

RHODE ISLAND

Roger Williams C, IIB	36.6

SOUTH CAROLINA

Anderson C, IV	25.4
Denmark Tech C, IV	22.7
Spartanburg Methodist C, IV	25.1
Spartanburg Tech C, IV	24.0
Sumter Area Tech C, IV	23.9
Tech C of the Lowcountry, IV	21.5
Trident Tech C, IV	26.1

SOUTH DAKOTA

National C, IIB	19.7

TENNESSEE

Free Will Baptist Bible C, IIB	21.0

TEXAS

Alvin CC, IV	32.4
Angelina C, IV	28.8
Austin CC, IV	29.2
Bee County C, IV	24.6
Blinn C, IV	25.4
Clarendon C, IV	24.0
C of the Mainland, IV	30.6
Cooke County C, IV	25.6
Galveston C, IV	28.7
Grayson County C, IV	29.0
Hill C, IV	26.4
Howard County JC Dist, IV	24.5
Lee C, IV	36.2
Midland C, IV	31.7
Palo Alto C, IV	26.0
Paris JC, IV	25.9
San Jacinto C, IV	29.7
Texas Southmost C, IV	26.9
Texas St Tech Inst	
Harlingen, IV	24.8
Waco, IV	25.0
Trinity Valley CC, IV	27.7
Tyler JC, IV	29.9

UTAH

C of Eastern Utah San Juan, IV	25.1
Dixie C, IV	25.7

VERMONT

Bennington C, IIB	30.9
Southern Vermont C, IIB	18.7

VIRGINIA

Southern Sem C, IV	22.2

WASHINGTON

Bellevue CC, IV	30.9
Centralia C, IV	28.8
Columbia Basin C, IV	29.5
Edmonds CC, IV	28.9
Grays Harbor C, IV	30.9
Green River CC, IV	32.7
Olympic C, IV	32.0
South Puget Sound CC, IV	27.6
Tacoma CC, IV	33.2
Walla Walla CC, IV	27.7
Washington St CC Dist, IV	28.1
Wenatchee Valley C, IV	27.1

WISCONSIN

Chippewa Valley Tech C, IV	33.7
Gateway Tech Inst, IV	31.7
Mid-State Tech Inst, IV	31.1
Milwaukee Area Tech C, IV	39.6
Northeast Wisconsin Tech C, IV	33.8

WYOMING

Casper C, IV	26.7

Bargaining Is Stalled Among Professors, Study Center Says

Continued from Page A15

their organizing efforts at colleges and universities.

"The unionization of support staff has risen to the top of their agendas," he said. "The organization of faculty may continue at a slow, steady pace, but the organization of clerical workers and other support staff is the expanding frontier for now."

Seen as Part of National Trend

The organization of clerical workers in higher education is part of a national trend toward the organization of white-collar workers, said Richard W. Hurd, an associate professor of economics at the University of New Hampshire, who spoke at the conference.

"The number of blue-collar workers is decreasing in an increasingly high-tech, service-oriented world," he said. "The area of white-collar workers in the service sector is fertile ground for unions now, and in higher education that translates into the organization of clerical workers on campuses."

Although the total union membership among clerical workers in higher education is unknown because workers are organized under so many different national and local unions, it is roughly equal to the 227,000 faculty members who belong to unions, Mr. Hurd estimated. The unionization of some 3,400 clerical workers at Harvard University last year, he said, reflects the recent momentum in the organization of clerical workers.

The continued rivalry among the three national faculty organizations—the N.E.A., the A.F.T., and the American Association of University Professors—was also a topic of discussion at the meeting.

Rivalry between the unions has helped to slow the growth of unionization among full-time faculty members, said Mr. Douglas, who organized the conference. He said, for example, that last year's union vote at Southern Illinois University at Edwardsville could have resulted in the organization of a collective-bargaining unit for faculty members if competition between the unions had been eliminated. While the pro-bargaining votes outnumbered the "no agent" votes, "no agent" won because the pro-union votes were divided among the three different unions on the ballot—an A.F.T.-A.A.U.P. coalition and the N.E.A.

> "The area of white-collar workers in the service sector is fertile ground for unions now."

Michael McNally, an organizer for the A.F.T. in Illinois, disagreed. He said competition was healthy because it promoted efforts to organize unions.

"If we merge tomorrow, we would see a slowdown in organization because the organizing staffs would not have to be in competition," he said. "When we get a sniff that [the N.E.A.] is in on an institution, we put people in just as they do when they get a sniff about us. This keeps things going."

Competition among unions also allows faculty members to choose which organization they would want to represent them in collective bargaining, said Christine Maitland, an N.E.A. higher-education specialist.

"There are some real differences among us, and faculty should have the right to choose," she said. She added that a merger between the unions would result in "no-raiding" agreements, which allow only one union to try to organize on a campus at a time. "We may have to spend more money on a campaign when another union is present, but our rivalry leaves options open for people who deserve them."

Real Rivalry Denied by Some

Other conferees denied that a real rivalry existed between different collective-bargaining agents.

Robert M. Nielsen, assistant to the president for higher education at the A.F.T., said that inter-union rivalry was a convenient and over-simplified explanation for the decrease in unionization among faculty members. Indeed, he said, competition among unions has been diminishing since the height of campus unionization efforts about 15 years ago.

"There's a common agenda in collective bargaining that we are all subscribing to," he said. "If there is rivalry, it only arises on the local level where personalities may clash and that doesn't reflect what is going on at the national level."

FACT FILE: Voluntary Support of Higher Education, 1987-88

Public Institutions

	112 doctoral institutions	154 comprehensive institutions	12 general baccalaureate institutions	17 specialized institutions	295 4-year institutions	125 2-year institutions	Total for 420 institutions
PURPOSES OF SUPPORT							
Current operations							
Unrestricted	$140,652,000	$26,874,000	$2,830,000	$13,565,000	$183,920,000	$5,403,000	$189,324,000
Restricted	1,243,318,000	99,361,000	4,660,000	60,273,000	1,407,612,000	18,498,000	1,426,109,000
Capital	272,517,000	33,733,000	947,000	43,450,000	350,648,000	14,595,000	365,243,000
Endowment							
Unrestricted	60,097,000	4,289,000	1,454,000	24,000	65,865,000	1,334,000	67,199,000
Restricted	419,403,000	47,948,000	5,269,000	18,009,000	490,630,000	8,841,000	499,471,000
Loan funds	6,961,000	463,000	253,000	257,000	7,934,000	14,000	7,948,000
SOURCES OF SUPPORT							
Alumni	$456,766,000	$33,009,000	$6,689,000	$2,380,000	$498,844,000	$3,684,000	$502,527,000
Parents	5,895,000	1,848,000	138,000	68,000	7,950,000	253,000	8,203,000
Other individuals	396,843,000	73,203,000	2,540,000	24,932,000	497,517,000	11,319,000	508,836,000
Foundations	356,353,000	20,892,000	1,356,000	63,756,000	442,357,000	7,608,000	449,965,000
Corporations and businesses	683,534,000	69,013,000	3,767,000	30,594,000	786,908,000	22,152,000	809,060,000
Religious organizations	839,000	213,000	15,000	73,000	1,140,000	27,000	1,167,000
Other organizations	242,718,000	14,491,000	907,000	13,775,000	271,892,000	3,643,000	275,534,000
FORMS OF GIVING							
Realized bequests							
For current operations	$45,349,000	$3,663,000	$53,000	$2,162,000	$51,226,000	$519,000	$51,746,000
For capital assets	151,183,000	14,087,000	2,804,000	4,505,000	172,580,000	2,359,000	174,938,000
Trusts, pooled income funds, and annuities	56,036,000	5,472,000	571,000	116,000	62,195,000	875,000	63,070,000
ALUMNI GIVING							
Total alumni of record	11,949,565	4,095,681	76,323	115,636	16,237,205	1,306,511	17,543,716
Alumni solicited	8,095,064	2,846,146	48,104	91,579	11,080,893	280,843	11,361,736
Alumni donors	1,560,141	448,286	12,681	16,633	2,037,741	27,149	2,064,890
GIFTS OF PROPERTY							
Company products	$73,191,000	$11,790,000	$778,000	$2,355,000	$88,114,000	$4,878,000	$92,992,000
Other, corporations	54,755,000	10,931,000	55,000	3,053,000	68,794,000	10,754,000	79,548,000
Other, non-corporations	82,211,000	8,931,000	167,000	7,955,000	99,266,000	1,402,000	100,667,000
CORPORATIONS' MATCHING GIFTS							
Total number of gifts matched	144,879	21,373	1,115	707	168,074	1,110	169,184
Support from matching-gift programs	$33,058,000	$3,737,000	$406,000	$906,000	$38,106,000	$204,000	$38,310,000
TOTAL SUPPORT	**$2,142,948,000**	**$212,668,000**	**$15,413,000**	**$135,578,000**	**$2,505,608,000**	**$46,685,000**	**$2,555,293,000**

Private Institutions

	71 doctoral institutions	191 comprehensive institutions	336 general baccalaureate institutions	99 specialized institutions	697 4-year institutions	25 2-year institutions	Total for 722 institutions
PURPOSES OF SUPPORT							
Current operations							
Unrestricted	$308,127,000	$172,276,000	$364,160,000	$73,321,000	$917,884,000	$7,784,000	$925,668,000
Restricted	1,094,541,000	124,683,000	176,875,000	68,881,000	1,464,979,000	4,098,000	1,469,077,000
Capital	393,729,000	141,242,000	171,480,000	30,382,000	736,833,000	4,763,000	741,596,000
Endowment							
Unrestricted	126,776,000	53,428,000	85,313,000	13,126,000	278,643,000	626,000	279,270,000
Restricted	605,355,000	123,053,000	268,751,000	54,098,000	1,051,257,000	2,456,000	1,053,713,000
Loan funds	7,994,000	2,868,000	4,045,000	1,758,000	16,665,000	4,000	16,669,000
SOURCES OF SUPPORT							
Alumni	$693,542,000	$155,980,000	$376,778,000	$20,049,000	$1,246,349,000	$3,384,000	$1,249,733,000
Parents	28,771,000	15,781,000	41,941,000	929,000	87,422,000	329,000	87,752,000
Other individuals	512,119,000	170,959,000	252,947,000	109,496,000	1,045,521,000	6,945,000	1,052,466,000
Foundations	578,054,000	101,916,000	199,648,000	44,522,000	924,140,000	2,401,000	926,540,000
Corporations and businesses	549,931,000	104,641,000	99,784,000	28,892,000	783,248,000	2,118,000	785,366,000
Religious organizations	37,955,000	39,727,000	66,868,000	22,102,000	166,652,000	4,023,000	170,675,000
Other organizations	136,150,000	28,546,000	32,658,000	15,576,000	212,930,000	530,000	213,460,000
FORMS OF GIVING							
Realized bequests							
For current operations	$96,282,000	$20,618,000	$62,424,000	$18,134,000	$197,458,000	$451,000	$197,909,000
For capital assets	221,170,000	67,483,000	124,147,000	22,240,000	435,041,000	764,000	435,805,000
Trusts, pooled income funds, and annuities	105,452,000	18,733,000	65,794,000	8,042,000	198,021,000	530,000	198,551,000
ALUMNI GIVING							
Total alumni of record	5,079,202	3,464,340	3,534,761	515,806	12,594,109	158,795	12,752,904
Alumni solicited	3,978,367	2,751,294	3,032,958	415,522	10,178,141	134,022	10,312,163
Alumni donors	1,116,946	665,668	1,031,275	100,849	2,916,738	24,100	2,940,838
GIFTS OF PROPERTY							
Company products	$80,396,000	$4,599,000	$2,895,000	$722,000	$88,612,000	$85,000	$88,698,000
Other, corporations	15,338,000	5,987,000	2,871,000	1,065,000	25,261,000	162,000	25,423,000
Other, non-corporations	47,757,000	15,628,000	37,632,000	1,181,000	102,199,000	421,000	102,620,000
CORPORATIONS' MATCHING GIFTS							
Total number of gifts matched	123,546	62,822	93,966	8,292	288,626	1,989	290,615
Support from matching-gift programs	$39,213,000	$16,289,000	$31,760,000	$2,709,000	$89,970,000	$319,000	$90,289,000
TOTAL SUPPORT	**$2,536,523,000**	**$617,550,000**	**$1,070,624,000**	**$241,565,000**	**$4,466,261,000**	**$19,731,000**	**$4,485,992,000**

Sources of Support

			Percentage change	
Sources	**1987-88 ***	**Per cent**	**1-year**	**5-year**
Alumni/alumnae	$2,042	24.9%	−13.0%	+65.1%
Other individuals	$1,927	23.5	− 6.7	+61.9
Corporations	$1,853	22.6	+ 1.9	+82.0
Foundations	$1,607	19.6	+ 6.2	+44.5
Religious organizations	$ 197	2.4	− 3.4	− 4.4
Other	$ 574	7.0	+ 4.0	+44.6
Total	**$8,200**	**100.0%**	**− 3.5%**	**+58.9%**
Price indices				
Consumer Price Index			+4.1%	+18.0%
Higher Education Price Index			+4.3%	+27.6%

* Millions of dollars, estimate

Trends in Giving

		Per student	
Selected academic years	**Total**	**Current**	**Adjusted†**
1970-71	$1,860,000,000	$217	$536
1975-76	2,410,000,000	215	381
1980-81	4,230,000,000	350	397
1986-87	8,500,000,000	678	598
1987-88	8,200,000,000	638	541
Average annual change			
1970-71 to 1975-76	+ 5.3%	− 0.2%	− 6.6%
1975-76 to 1980-81	+11.9	+10.2	+ 0.8
1980-81 to 1985-86	+11.8	+11.5	+ 6.6
1986-87 to 1987-88	− 3.5	− 5.9	− 9.5

† Adjusted to 1983 dollars, according to Consumer Price Index

SOURCE: COUNCIL FOR AID TO EDUCATION

Gifts to Colleges Off 3.5 Pct.; Cutback by Alumni Blamed

Continued from Page A1

vice-president. "Inevitably there has to be a leveling off."

A drop-off in donations in 1987-88 had been expected. Many donors gave heavily early in the previous academic year, in anticipation of reduced tax benefits for charitable contributions that went into effect in January 1987. Then, the October 1987 stock-market collapse shook donor confidence and thinned their wallets, prompting many to delay their giving plans and reduce the size of their gifts.

Given the "one-two punch" of the new tax law and market crash, Mr. Smith said colleges might have expected a giving decline of more than 3.5 per cent. "If the drop had been 10 per cent, I would not have been surprised," he said.

Fewer Worries About Stocks

The downturn in donations apparently has not continued into the current academic year. No comprehensive measure of this year's giving levels will be available for some time, but fund raisers on several campuses said last week that their giving programs had recovered the momentum they lost last year.

Donors have generally accommodated themselves to the new tax laws, fund raisers said, and are less worried about the markets than they were in the months immediately following the Wall Street meltdown.

Still, Mr. Smith said colleges could expect an "indefinite" period of modest growth, rather than a quick return to the days of heady annual increases. "It doesn't mean dark days ahead for colleges at all," he said. "But they'll have to learn to live with more moderate expectations."

The council's projections of 1987-88 giving were based on a survey of gifts, grants, and donations received at 722 private and 420 public colleges and universities. The institutions covered in the survey typically report about 85 per cent of all private contributions to higher education.

Increase for Public Institutions

Despite the drop in total giving, not all of the numbers for the year were down. While private colleges and universities saw a 7.1-per-cent drop in donations, public institutions—which are less dependent on individual support than the private institutions—reported a 3.1-per-cent increase in giving. Increased corporate support fueled much of the rise in donations at public institutions, the survey indicated.

Foundation giving to both public and private institutions was up, too—by 6.2 per cent, to $1.6-billion.

But none of those increases was sufficient to compensate for the drop in donations from alumni and other individuals.

Together, those groups provide about half of all private contributions to colleges and universities, and their giving behavior tends to influence overall patterns more than do shifts in support from corporations and foundations.

Alumni gave a total of $2-billion to their alma maters, the survey said, down 13 per cent from 1986-87. Nonalumni individuals gave $1.9-billion, a drop of 6.7 per cent.

While more alumni gave last year—5 million, up from 4.8 million the previous year—the average donation declined, to $327 from $390.

The survey did not specifically measure a drop in major gifts, which are often made in the form of securities, but a marked decline in donations for capital purposes, including endowment and buildings, suggests that such a drop occurred.

Gifts for capital purposes totaled $3.5-billion, a decline of $500-million, or 13.4 per cent. Donations for current operations totaled $4.7-billion, an increase of 5.6 per cent—reflecting in part the increased support from corporations and foundations, which rarely give money for endowment or buildings.

Planned gifts, another index of large gifts and donations of stocks, fell 38 per cent last year, to $262-million. Planned gifts—which can provide income to donors and tax benefits—include annuities, pooled-income funds, and charitable-remainder trusts. Such gifts had increased dramatically—by 74 per cent—during 1986-87.

Private colleges and universities still dominate higher-education fund raising, but more public institutions are increasing their gift-solicitation efforts, the survey showed. Six public universities were among the top 20 institutions in fund-raising success last year, up from five the previous year. Two of those six were in the top 10—the University of Minnesota and the University of Wisconsin at Madison.

Top 5 Positions Are Unchanged

Stanford University, which is running a $1.1-billion capital drive, the largest ever, led all institutions in fund-raising for the third consecutive year. But the amount Stanford raised, $181.9-million, was down 8.4 per cent from the year before.

The other positions in the top five remained unchanged. Harvard University held onto second place, Cornell University third, Yale University fourth, and Minnesota fifth.

Except for Yale, which managed a 1-per-cent increase for the year, all of the institutions on the top 10 list in 1986-87 reported decreased giving levels last year. Those drops caused three institutions to fall from the top 10.

After finishing a $630-million capital campaign and receiving several major gifts in 1987, Washington University in St. Louis suffered the biggest drop in the rankings, from sixth place and about $110-million in 1986-87 to 26th place and about $50-million last year.

Johns Hopkins: From 9th to 15th

The Johns Hopkins University was running its $600-million campaign throughout last year, but with $70.6-million in donations, nearly 24 per cent less than the year before, Hopkins fell from 9th to 15th place.

"The difference was a couple of big gifts," said Robert J. Haley, vice-president for development and alumni relations at Johns Hopkins. With $74-million in gifts as of last week, the university is already ahead of the total for all of last year, Mr. Haley said, thanks in part to starting its "year-end push" last October, two months earlier than usual.

With a $557-million campaign underway, the University of Southern California also fell from the top 10, from 10th to 12th place. U.S.C. reported $82-million in donations last year, 10 per cent less than in 1986-87, but officials there expect to raise more than $100-million this year if a current record-breaking pace can be sustained.

"The philanthropic public has absorbed the tax changes," said Roger F. Olson, senior vice-president for university relations at U.S.C. "Donor intent is more pliable than people realize. If they want to make a gift, they'll figure out how to do it."

Average Donor Gives Less

The University of Pennsylvania, the California Institute of Technology, and the University of Wisconsin all moved into the top 10 rankings. Penn, which raised $106.2-million last year, a 21.7-per-cent increase, is in the "lead gifts" phase of a $800-million campaign that will start formally this fall. And Caltech, while not conducting a campaign, received two mega-gifts in recent years that alone yielded payments of $51-million last year, more than half of its $97.4-million total.

"People who want to support cutting-edge science will do it regardless of what's going on otherwise," said J. Thomas Gelder, director of development at Caltech.

Mr. Gelder said changes in tax law or the markets might affect the timing or size of a donor's gift, not the fundamental decision to give.

But with the average donor giving less, Mr. Smith of the C.F.A.E. said many colleges would have to work harder to sustain a given level of donations.

Alumni may prove the key continuing source of new funds, Mr. Smith said, since many institutions, particularly public colleges and universities, solicit only a share of their alumni.

Of those solicited, an average of 23 per cent make donations.

Still, some institutions, if they ask for money too often, run the risk of "overmilking" their alumni—a prospect likely to grow as the number and size of capital campaigns increase, Mr. Smith said.

With a 3.5-per-cent decline in total giving last year, colleges and universities fell behind inflation, measured at 4.1 per cent by the Consumer Price Index and 4.3 per cent by the Higher Education Price Index, a gauge of prices colleges and universities pay for goods and services.

Range of Gifts: $73 to $577

The survey also found:

- Average support ranged from $35.7-million at private doctoral-granting research universities to $1.3-million at public liberal-arts colleges.
- The average gift ranged from $577 at private research universities to $73 at public comprehensive institutions.
- Private colleges and universities received donations from 28 per cent of the alumni they solicited. At public institutions the "solicitation effectiveness" rate was 18 per cent.
- Corporate support over all was up nearly 2 per cent, to $1.85-billion, but not across the board. Continuing a trend, private institutions received 6 per cent less support from companies last year, public colleges 8 per cent more. And, companies are providing their support more in cash and less in products and property.
- Contributions to colleges and universities from religious organizations were down again, by 3.4 per cent, to $197-million. Donations from other groups, such as clubs, unions, and fund-raising consortia, rose 4 per cent to $574-million.

Copies of the report of the survey will be available in early June for $35 each, prepaid, from the Council for Aid to Education, 51 Madison Avenue, New York 10010.

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News Summary

Articles on inside pages

Fusion in a flask may never have occurred, physicists said at a meeting last week: Page A4.

Walker Percy, the novelist, physician, and this year's Jefferson Lecturer, calls the social and behavioral sciences incoherent: Page A5.

Some professors assert that if publishers win their lawsuit against a photocopying chain, it will be impossible to educate students: Page A11.

College officials fear that charges of improprieties by the heads of two state student-loan agencies will tarnish student-aid's image: Page A18.

Gov. Mario M. Cuomo vetoed a plan to raise tuition at New York's public-university systems: Page A19.

Missouri's college officials are confounded by the state's unwillingness to increase taxes for education: Page A19.

More colleges are struggling to dispose of hazardous wastes generated by campus operations: Page A27.

A shrinking accounting enrollment and reports of a decline in the quality of graduates have prompted an effort to update the curriculum: Page A31.

Athletes at Southern Methodist U., which has been plagued by scandals, are required to take a course on issues and ethics in sports: Page A33.

China's student movement defied the government with a second huge rally in central Beijing: Page A35.

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Ruling Seen Helping Professors Bring Discrimination Cases

Supreme Court puts burden of proof on employers

By SCOTT JASCHIK

WASHINGTON

A ruling by the Supreme Court last week could make it easier for faculty members to bring discrimination cases against colleges and universities over tenure and promotion decisions.

The Court found that in cases where employees provide sufficient evidence that illegal discrimination played a role in the decision, employers seeking to defend themselves must prove by "a preponderance of the evidence" that they would have made the same decision regardless of the discrimination.

Although the case did not involve a faculty member, experts on higher-education law said the circumstances were similar to those cited in discrimination suits brought by faculty members. For that reason, they predicted that the Court's decision would probably change the way in which some of those faculty cases are decided.

Decisions Made 'on Irrational Bases'

"This is a very important ruling because it helps people to understand that these employment decisions are still being made on irrational bases," said Donna L. Shavlik, director of the American Council on Education's Office of Women in Higher Education. She said the case would be "very positive" for faculty members bringing suits based on discrimination that is subtle, rather than overt. "The unconscious judgments are still there, and they still plague women faculty members, administrators, and students," she said.

The Supreme Court case originated in a

Continued on Page A22

SOUTH KOREA GETS TOUGH ON RADICAL PROTESTERS

REUTERS/BETTMANN

The deaths of six policemen in a university raid in Pusan have hardened attitudes toward student radicals. Above, a subsequent clash at Seoul National U.: Page A35.

Black-College Officials Applaud Bush Plan, but Some Say It Ignores Most-Pressing Issues

By ROBIN WILSON

WASHINGTON

Officials of historically black colleges last week applauded President Bush's new program to marshal support for their institutions.

But civil-rights lobbyists said Mr. Bush's plan ignores the most pressing education issues facing black students: the difficulty in gaining admission to college and, once there, footing the tuition bills.

Ceremony in Rose Garden

"It is good the federal government is taking these initiatives, but these shouldn't be the only ones," said Phyllis McClure, director of the division of policy and information of the NAACP Legal Defense and Educational Fund.

President Bush announced the program for black colleges at a Rose Garden ceremony. White House officials said the Bush Administration would do the following:

- Strengthen an executive order, originally signed by President Reagan, directing federal agencies to award more grant and contract money to black institutions.
- Create the President's Board of Advisors on Historically Black Colleges and Universities. The board members, who will be appointed by the President, will include college presidents, business leaders, and elementary- and secondary-school officials. The board will help Education Secretary Lauro F. Cavazos monitor federal agencies' commitments to black colleges and give the Secretary advice on other ways in which black colleges could be strengthened.
- Work with businesses to encourage private support of black colleges. The White House Office of National Service will ask businesses to offer matching grants to colleges and to help them develop more effective ways to manage their finances, strengthen their faculties, and improve course offerings.
- Develop a new program that will allow more students at black colleges to serve in part-time and summer jobs in the federal government. The Administration also will

Continued on Page A23

Computerization Makes Student Records Accessible, but Raises Issues of Security and Confidentiality

By THOMAS J. DeLOUGHRY

CHICAGO

The computerization of students' records is making information more accessible to administrators, faculty members, and the students themselves. But it is also raising new concerns about security and confidentiality.

People assembled here for a meeting of the American Association of Collegiate Registrars and Admissions Officers heard speakers at several sessions call on all university offices with access to student records to guard their privacy and protect them from unauthorized use.

Nationwide, more and more faculty members and administrators are seeking access to students' files, said Thomas M. Luker, a systems analyst with the registrar's office at the University of Texas at Austin. He said professors and administrators want instant access to class rosters or to information about students they are advising. The proliferation of computer terminals has also spurred demand, by giving more staff and faculty members the means of gaining access to records systems.

Peggy Corley Askins, registrar at Oklahoma Baptist University, said computers had brought an end to the days when registrars had sole responsibility for the privacy of student files and full control over them.

"With electronic records, your level of responsibility is far higher than your level of control," Ms. Askins told the registrars. An institutional approach to the security of records is "absolutely essential," she said.

Faculty and staff members must become familiar with security procedures that are now common in registrars' offices, she said, noting that people should keep pass-

Continued on Page A32

Long Fight Between TIAA-CREF and Critics May Be Nearing End

Colleges are awaiting a ruling on a plan to give TIAA-CREF's 1.2 million policyholders more control over their retirement money: Page A11.

MARGINALIA

From the announcement of a logo-design contest at the University of Wisconsin at Milwaukee:

"Next year the U.W.M. School of Architecture and Urban Planning will be celebrating its 20th anniversary. . .

"Even though the logo-design will be primarily used for T-shirts and sweatshirts, consider the use of it on mugs, buttons, and bumber stickers."

Not to mention bumber*shoots*.

■

For a "Touch of Home Week," the manager of the University of Indianapolis cafeteria asked students to give him their favorite recipes. Among the 220-plus that he received were recipes with the following titles:

"Pink Stuff"
"Dirt Pudding"
"Grandma Johnson's Porcupines"
"Spanish Woo Woo"

■

Job opening in *Family News*, a publication from the office of the dean of students at Denver Seminary:

"CHAPLIN Part-time, to work with hospice patients."

Charlie, where are you?

■

News item in the Bethlehem (Pa.) *Globe-Times:*

"Don Davis of Bethlehem, a math professor at Lehigh University, finished in third place Sunday in the Sri Chinmoy 50-mile run. . . .

"Davis, 43, finished the course in six minutes, 30 seconds."

That's life in the fast lane.

■

Which brings us to an item in our own "In the Statehouses" column:

"Six presidents of religious colleges in Iowa landed in the middle of a bitter fight over legislation to legalize riverboat gambling. . . .

"John V. Hartung, president of the Iowa Association of Independent Colleges and Universities, said the college presidents 'didn't even know they were getting involved. They were trapped.'

"Mr. Hartung said the presidents thought they were engaged in a casual conservation about a provision in the proposed law which would allow 18-year-olds to gamble."

Beware of casual conservatives, a reader warns us.

■

From a memorandum from fraternities to the Steering Committee and Task Force at Gettysburg College, which is looking into Greek life on the campus:

"First of all it is apparant that greek affiliation improves academic performance as evidenced by the higher grade point averages greeks mainatin over non-Greeks."

Uh-huh. —C.G.

In Brief

MIT Panel Urges Changes in Engineers' Education

CAMBRIDGE, MASS.

A faculty commission at the Massachusetts Institute of Technology last week called for major changes in the education of engineers and managers to improve American productivity.

The commission said engineering educators should emphasize "real-world, hands-on experience" and give an international context to more courses.

The recommendations were included in *Made in America: Regaining the Productive Edge*, a hardcover book that describes new strategies in industry, education, labor, and government that commission members said were needed to improve American productivity.

Role for Business Schools

The 16-member commission recommended that engineering students be given the option of an extended "pre-professional" undergraduate program that would provide them with a broader education in allied technologies, science, economics, history, and management.

The commission did not specify the length of such a program, except that it would be longer than four years.

Business schools, the book said, should strengthen their ties to universities abroad to foster exchanges of ideas, students, and faculty members.

The commission said a major interdisciplinary research center should be established to coordinate research in industrial productivity and to encourage the development of interdisciplinary courses related to industrial productivity.

The book was published by the M.I.T. Press and is available for $17.95 a copy.

—THOMAS J. DeLOUGHRY

Protesters Disrupt Speech by South African Official

A representative of the South African government was forced to flee Temple University after protesting students interrupted a speech he was giving.

John A. Davies, the South African consul, had been invited to speak by the chairman of the political science department.

As he began his speech, Mr. Davies was interrupted by chanting students. Mr. Davies decided to leave, but angry student demonstrators blocked his way and prevented him from leaving for 20 minutes.

Peter J. Liacouras, president of Temple, said that while he condemned the apartheid policies of the South African government, he also condemned the protesters for denying Mr. Davies his right to free speech.

Asians on U.S. Campuses Rally to Support Chinese

Asians studying at American colleges and universities held rallies last week in support of students in China who are demonstrating for democratic reforms.

Organizers said it was one of the largest mobilizations of Asian students on American campuses in recent years.

"We want to reach the public and get the support of the American people," said Ping Chen, a Chinese research fellow at the University of Texas at Austin who was one of the main organizers of the rallies. "It's important for everyone to hear our message."

Mr. Chen, a former president of the Young Chinese Economists Society, an association of Chinese students, said demonstrations were expected on about 50 U.S. campuses.

Tens of thousands of Chinese students have taken to the streets in several Chinese cities in recent weeks, demanding more democracy and freedom (see Page A35).

ACT Sees Greater Need for Student Aid

More than 80 per cent of U.S. schoolchildren would need financial aid to attend community college if they enrolled today, according to a report by the American College Testing Program.

Ninety-five per cent of schoolchildren would need financial aid to attend a private college or university, adds the report, "Family Income, Children, and Student Financial Aid."

The report attributes the expected increase in demand for aid to a greater proportion of American families at lower income levels. Single-parent families and those headed by parents who are not college-educated, in particular, have had problems maintaining their standard of living since 1970, the report says.

It predicts that higher education will see more institutionally financed aid programs to make up for inadequate government funds, more plans that encourage families to set aside money for college, and a continued shift in enrollment toward less expensive colleges.

Copies of the report are available free from A.C.T. Publications, P.O. Box 168, Iowa City 52243.

Cal. Historical Society Closes Its Library

The California Historical Society, a 118-year-old organization whose extensive collection of rare early California documents is used widely by scholars, has closed its library because of financial problems.

Nathan Sumner, executive director of the society, said it had been operating on reserves for many years and had run out of money. Twelve of its 22 employees have been laid off; 10 remain to maintain the collection.

Mr. Sumner said the society hoped to reopen the library as soon as $1-million in donations are obtained and a source of operating funds is established. Until now, the society's chief sources of income have been private donations and membership fees.

The society's offices and library are housed in two historic San Francisco buildings. Its collection includes 50,000 books and hundreds of thousands of pamphlets, diaries, manuscripts, photographs, and other artifacts.

Arizona State Race Brawl Under FBI Investigation

The Federal Bureau of Investigation is investigating alleged civil-rights infractions in fights between blacks and whites on Arizona State University's Fraternity Row one night last month.

Two black students who were arrested after the brawl but never charged said they had been bullied by campus police, according to a university spokesman.

Three white students were arrested and charged with failing to disperse after the early-morning fight, which involved 50 students and attracted 500 onlookers.

The incident sparked several anti-racism protests, including a march by about 600 students and faculty members. In response, the university's president, J. Russell Nelson, agreed to demands that the university take steps intended to make the campus more sensitive to racial issues.

Graduate Students Strike Over Union at Berkeley

Graduate students at the University of California at Berkeley, who have been seeking collective-bargaining rights for six years, re-

A Civilized Sporting Tradition for Neighboring Institutions

ANNAPOLIS, MD.

Students at St. John's College, a small, liberal-arts institution, have won their annual intercollegiate competition against their formidable neighbors, the midshipmen of the U.S. Naval Academy.

The two were not pitted in the rough-and-tumble of the playing field. Rather, in the British tradition, the Johnnies invited the Middies for a more civilized game of croquet on the college's front lawn.

The 6½-hour match marked the seventh year of the intercollegiate competition, and the fifth win for St. John's. The Johnnies bested the midshipmen in two of three games.

The matches began as a way to bring together the neighboring institutions, which have radically different missions and curricula. Until they took up croquet, the two had not competed in sports since 1941. They sailed in dinghy races then.

The St. John's team captain, George Turner, said both teams were serious about their quest for the "Annapolis Cup."

—COURTNEY LEATHERMAN

MIKE MAJOR / ANNAPOLIS CAPITAL

A St. John's College player hits a croquet ball as a teammate looks on, during a match with the U.S. Naval Academy.

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Note Book

Can students stay sober for a week? When Bruce I. Lazarus challenged his liability class for hotel and restaurant majors to stop drinking, the majority of his students fell off the wagon.

Mr. Lazarus, an assistant professor of hotel and restaurant management at Purdue University, has conducted the experiment for the past four years. This year about 40 per cent of the volunteers made it through the week without any alcohol. The best results came in 1987, when 67 per cent of those who tried stayed sober.

Not every student in the class wants to give up alcohol for a week, but all are required to keep a diary of their experiences in trying to.

"I realize now that drinking is a big part of my social life," wrote one student. "My friends and I seem to plan all our activities around drinking."

Another student wrote: "I accepted his offer to drink. He was too cute to say, 'Just Coke please.' "

During the week, students must record how many times they are offered a drink, their behavior when they are drinking, and the number of times they find themselves in situations where alcohol is present.

"The majority of students are shocked at how much alcohol they consume," says Mr. Lazarus. "They never thought about it because they never had to write it down before. Most students are surprised that they can't give up drinking as easily as they thought they could."

■

University of Florida students who catch their classmates cheating are being urged to turn them in on a 24-hour "cheating hot line."

Students on the university's Honor Court set up the hot line two months ago to encourage their classmates to report cheaters.

"Students are usually hesitant to turn other students in," says Irene E. Stevens, assistant dean for student services. "But we thought if students could call in anonymously they would be more willing to provide information."

The hot line has received many calls, some of which are being investigated by the Honor Court.

■

Community colleges are trying to attract more foreign students by holding college fairs in Japan.

"Colleges and universities have been much more aggressive about recruiting international students," says Michael E. Paradise, director of the Office of International Services at the American Association of Community and Junior Colleges. "Foreign students are familiar with American universities, but not community colleges."

The association sponsored a college fair last month in Tokyo, where 1,000 Japanese students met with representatives from 27 community colleges.

Accounting Educators Plan to Update Curriculum, Debate Tighter Entrance Requirements for CPA's

Some balk at professional group's call for added study; major firms pledge $4-million for innovations

By JEAN EVANGELAUF

Concern over shrinking enrollment and reports of a decline in the quality of graduates have prompted a national effort to update the accounting curriculum and to increase the licensing requirements for certified public accountants.

"Malaise" best characterizes accounting education today, says the president of the American Accounting Association, which represents educators in the discipline.

"Our present textbooks and pedagogy haven't changed since the 1950's and are quite obsolete," says the president, Gerhard G. Mueller, who is an accounting professor at the University of Washington. "There has developed a huge schism between what's taught in the classroom and what the real world is like."

He adds: "In most colleges, you get the bright bushy-tailed students into the first-year accounting class, and within the first two weeks, they're totally turned off. They think accounting is nothing but number crunching."

Revisions Planned for CPA Exam

Some groups are working to turn that situation around. Last month, for example, the nation's major accounting firms pledged $4-million for curricular innovation. And the C.P.A. examination, which has long been criticized for driving the curriculum toward rote learning, will probably be revised. Last week the organization that administers the exam recommended significant changes in the grueling 2½-day, 19½-hour test that is required for licensing.

While educators applaud those moves, they have decidedly mixed reactions to the most far-reaching attempt to change the profession: a ruling by the American Institute of Certified Public Accountants that, beginning in 2000, new members must have 150 credit hours of higher education, including a bachelor's degree. For the typical student, that translates into a year of education beyond the baccalaureate.

Because public accountants are licensed by the individual states, the institute has stepped up a campaign to encourage legislatures to require those taking the C.P.A. exam to meet the 150-hour rule. So far six states have adopted it—Florida, Hawaii, Montana, Tennessee, Utah, and West Virginia.

Gerhard G. Mueller: "In most colleges, you get the bright bushy-tailed students into the first-year accounting class, and in the first two weeks, they're totally turned off."

If the drive succeeds, it could have a substantial impact on both undergraduate and graduate enrollments and on course offerings, and business schools are watching the effort closely. A session on the requirement at last month's annual meeting of the American Assembly of Collegiate Schools of Business, for example, drew a standing-room-only crowd.

Greater Complexity Cited

The American Institute of Certified Public Accountants believes the 150-hour requirement is needed because accounting has become more complex, according to Rick Elam, vice-president for education at the institute. "Just look at the leveraged buyouts, junk bonds, and other new wrinkles in the financial world that accountants and auditors are required to make statements about," he says. "It's clear that C.P.A.'s need more education to cope in the world of ever-changing financial instruments and government regulation."

While the institute does not specify which courses or which degrees potential C.P.A.'s should complete, it recommends they have 60 to 80 hours of general education, 35 to 50 hours in business, and 25 to 40 hours in accounting. Mr. Elam says the guidelines are "broad and flexible," and he emphasizes that C.P.A.'s will not have to earn a graduate accounting degree.

Accounting educators are divided over the proposal. Advocates believe that extended training is vital for success in accounting, and they say the requirement will enhance the stature of the profession. Opponents warn that more education does not necessarily mean better education, and they say it may deter people from considering the field. They also fear state legislatures may set inappropriate course requirements.

Transition Could Be Disruptive

The American Accounting Association says the proposal is but one of many ways to stimulate change and does not endorse it as a "single-track" approach. The Federation of Schools of Accountancy, which represents 36 graduate accounting programs, supports it.

The transition to the new requirements will most likely be disruptive, given the experience of one of the first states to make the switch. In 1979, Florida legislators voted to require that after August 1, 1983, candidates for the C.P.A. exam would have to have a bachelor's degree and 30 additional hours of course work, including 36 hours of accounting beyond the introductory level.

As the effective date neared, students rushed to meet the old requirements, according to Clifford E. Eubanks, dean of business at the University of Central Florida. "We came close to graduating two classes in one year," he recalls.

Statewide, the number of first-time test takers swung dramatically. Before the change, from 1,800 to 2,000 first-time candidates took the exam each year, but in 1983, the number soared to 3,657. It plunged to just 49 the next year and rose only to 741 by 1988.

Listing the effects of the change, Mr. Eubanks says the passing rate of first-time test takers more than doubled, to 34 per cent, and he says he believes the quality of new accountants has improved. But de-

Continued on Following Page

Education Secretary, Citing Student Statistics, Says School-Reform Movement Is Stalled

WASHINGTON

Education Secretary Lauro F. Cavazos reported last week that students' performance in the nation's schools had stagnated and was "merely average."

In releasing the Education Department's sixth annual "Wall Chart" of state education statistics, Mr. Cavazos said the major obstacle to improvement was the country's failure to recognize it had an "educational deficit." The education-reform movement, he said, "has lost some of its momentum."

Mr. Cavazos cited a dip in the high-school graduation rate and a mixed performance on college-admissions tests as the primary evidence of the problem. Nationally, the graduation rate fell to 71.1 per cent in 1987 from 71.6 per cent in 1986. The average score on the Scholastic Aptitude Test fell by two points in 1988, to 904, while the average score on the American College Testing Program A.C.T. Assessment rose a tenth of a point, to 18.8.

'We Cannot Be Satisfied'

"We cannot be satisfied with mediocrity, and so it's time to turn things around," he said.

To reverse the declines, Mr. Cavazos called on parents to take a more active role in their children's education by consulting with teachers and by insisting that their children attend class and complete their homework. He also urged states and school districts to identify and announce detailed goals for improving performance.

Specifically, he called for an increase in the graduation rate to at least 90 per cent, a level achieved now in only one state, Minnesota. Noting that some 3,600 children nationwide drop out of the educational system each school day, Mr. Cavazos said, "We cannot afford to let any

Continued on Following Page

Education Secretary, Citing Statistics, Says School Reforms Have Stalled

Continued from Preceding Page
youngster face a lifetime of low-paying and low-status jobs."

From 1986 to 1987, the high-school graduation rate declined in 31 states, increased in 19 states, and was unchanged in one. The District of Columbia had the worst rate, 55.5 per cent.

Mr. Cavazos said the role of the federal government in school improvement is to bring educational issues to national attention; to highlight exemplary programs; to reward successful schools, teachers, and students; and to reduce bureaucratic red tape.

The Secretary emphasized that "money alone is not the answer to our education deficit," saying that achievement had stalled despite large increases in per-student spending in recent years. From 1982 to 1987, such spending rose 46 per cent, to $3,977.

Amid the generally negative indicators of performance, Mr. Cavazos did point to some promising signs. In the last few years, test scores of minority-group students rose, he said, and more students took the S.A.T., A.C.T., and Advanced Placement tests.

As it has in the past, the Education Department drew fire for using what some critics consider inappropriate measures of performance. The Council of Chief State School Officers said test scores and graduation rates "do not provide a comprehensive picture or a basis for comparison among states."

'Scores Can Be Misleading'

Because the scores cover a self-selected sample of college-bound students, they do not represent the performance of all young people, said the College Board, which sponsors the S.A.T. "Scores can be misleading when used to compare or rank states," a board spokesman said.

In addition to performance measures, the chart includes such data as population characteristics, average teacher salaries, student-teacher ratios, and per-student expenditures. It also contains a checklist of such reform measures as minimum-competency testing for graduation.

—JEAN EVANGELAUF

College Admissions Test Scores by State, 1988

	Test	Average score	1-year change	Per cent tested
Alabama	ACT	18.1	+0.1	54.1%
Alaska*	ACT	18.4	−0.3	36.9%
Arizona	ACT	19.3	0.0	36.8%
Arkansas	ACT	17.9	+0.1	57.9%
California	SAT	908	+2.0	45.7%
Colorado	ACT	19.7	−0.2	64.0%
Connecticut	SAT	908	−4.0	78.2%
Delaware	SAT	899	−11.0	67.4%
D.C.	SAT	839	−3.0	62.9%
Florida	SAT	890	−3.0	52.7%
Georgia	SAT	848	+8.0	63.4%
Hawaii	SAT	888	+7.0	53.1%
Idaho	ACT	19.3	+0.3	57.2%
Illinois	ACT	18.9	0.0	65.4%
Indiana	SAT	870	−4.0	58.8%
Iowa	ACT	20.3	0.0	62.5%
Kansas	ACT	19.1	−0.2	66.3%
Kentucky	ACT	18.2	−0.1	60.5%
Louisiana	ACT	17.1	+0.2	64.6%
Maine	SAT	896	−3.0	59.4%
Maryland	SAT	908	−6.0	61.6%
Massachusetts	SAT	906	−3.0	71.7%
Michigan	ACT	18.8	0.0	62.6%
Minnesota	ACT	19.9	−0.3	44.3%
Mississippi	ACT	16.2	−0.1	67.5%
Missouri	ACT	19.1	−0.1	57.5%
Montana	ACT	19.9	0.0	52.0%
Nebraska	ACT	19.8	0.0	67.0%
Nevada	ACT	19.0	−0.1	44.1%
New Hampshire	SAT	933	−5.0	70.6%
New Jersey	SAT	893	+1.0	71.8%
New Mexico	ACT	18.0	0.0	55.7%
New York	SAT	889	−5.0	71.7%
North Carolina	SAT	841	+3.0	60.7%
North Dakota	ACT	18.7	−0.1	72.8%
Ohio	ACT	19.3	0.0	51.5%
Oklahoma	ACT	18.0	+0.3	56.3%
Oregon	SAT	923	−5.0	51.5%
Pennsylvania	SAT	886	−5.0	62.6%
Rhode Island	SAT	900	+2.0	63.8%
South Carolina	SAT	838	+6.0	55.4%
South Dakota	ACT	19.8	+0.2	68.3%
Tennessee	ACT	18.0	0.0	65.2%
Texas	SAT	879	+4.0	45.6%
Utah	ACT	18.9	0.0	70.1%
Vermont	SAT	909	−5.0	67.0%
Virginia	SAT	902	−5.0	64.9%
Washington†	—	—	—	—
West Virginia	ACT	17.6	0.0	50.5%
Wisconsin	ACT	20.2	−0.2	50.4%
Wyoming	ACT	19.5	−0.4	61.3%
U.S. average	ACT	18.8	+0.1	
	SAT	904	−2.0	

Note: The ACT (American College Testing Program's ACT Assessment) is scored on a scale from 1 to 36. The SAT (the College Board's Scholastic Aptitude Test) is scored on a scale from 400 to 1,600. For each state one score is given, depending on which test was taken by more students. The table shows the percentage of high-school graduates who took the test, based on 1987 public-school and 1980 private-school enrollment data.

* ACT scores reported for comparison, although a larger percentage of students took the SAT in 1988.

† Washington State administers its own tests.

SOURCE: U.S. DEPARTMENT OF EDUCATION

Accounting Educators Plan to Update Curriculum, Debate Tighter CPA Entrance Requirements

Continued from Preceding Page
spite strong demand, the number of new C.P.A.'s is lower than it was before, and enrollments in accounting programs have leveled off.

The new push for the 150-hour requirement will help stimulate efforts to improve the accounting curriculum generally, educators say. Although not all accounting majors seek a C.P.A. license, the requirements for public accounting exert a strong influence on course content.

'Complete Reorientation'

The drive to reform accounting education started four years ago, when the American Accounting Association issued a report urging a "complete reorientation" of the curriculum.

Echoing those sentiments, the chief executives of the "Big Eight" accounting firms last month said in a report that accounting education should be redesigned to become "interesting, demanding, and relevant." To foster that redesign, they committed $4-million over five years to support innovations in the curriculum and in teaching methods and materials. An A.A.A. committee will distribute the money through competitive grants.

Rooted in the Liberal Arts

Broadly, the two groups propose a curriculum rooted in the liberal arts that prepares students for lifelong learning in the profession. The curriculum should include case discussions and team projects, they say, and should emphasize communications skills.

The groups also want faculty members to be rewarded for work on curricular materials.

"Our highest priority should be to get away from detailed coverage of accounting standards," says John K. Simmons, a professor of accounting at the University of Florida and president-elect of the A.A.A. Accounting and auditing standards have proliferated, but students should not be expected to memorize them, he says.

Some educators attribute the overemphasis on accounting standards to the C.P.A. examination, which is written by the American Institute of Certified Public Accountants and administered by the National Association of State Boards of Accountancy. "Because the examination is very concrete and the results are very precise, the accounting textbooks and curriculum are influenced more by the examination than they should be," says Mr. Simmons.

'There's a Lot of Stress'

The timing of the exam is another problem, adds William G. Shenkir, dean of the McIntire School of Commerce at the University of Virginia. It is given in May and November, and many seniors opt for the May exam.

"That means the senior year gets too focused on what it takes to pass the exam, not on what it takes to get a basic education in accounting," he says. "There's a lot of stress."

The test will probably be revised, and a new version may appear as early as 1992, according to the two groups responsible for it. Among the likely changes: Calculators may be used, essay questions will be graded for writing quality as well as for content, the number of "free-response" questions will be reduced, and the length will be trimmed by 3½ hours. The test dates are unlikely to change anytime soon, though, because contracts for test sites are signed years in advance.

Quickening the pace of reform are a growing imbalance between the supply of accountants and the demand for them and concerns that new accountants are not as talented as they used to be.

Last year, 46,340 bachelor's degrees and 4,910 master's degrees were awarded in accounting, well below the 1984 highs of 53,020 and 6,330 respectively, according to accounting institute statistics.

16,000 Openings a Year

While it is difficult to document the decline in quality, the Big Eight firms say they are not as selective as they would like to be in hiring for the 16,000 openings they have each year. In addition, accounting professors say the field is no longer the choice of top students, who are instead flocking to finance and management-information systems, which have more up-to-date curricula and more exciting and lucrative career opportunities.

Accounting professors warn that merely revising the curriculum will not solve the staffing problems of the public-accounting firms. They say that to attract the students they want, the firms must increase salaries and provide more interesting career paths.

Educators and C.P.A.'s agree that the poor image of accounting is in part to blame for the supply problem. More most be done, they say, to dispel the view that accounting is a dreary profession. A C.P.A. license can lead to good jobs not just in accounting firms, they note, but in government and business, as well.

Video for High-School Students

"People say that the TV show 'L. A. Law' helped law-school enrollments," jokes Mr. Shenkir. "If there was a similar show about accounting, it might be a boon to the profession."

While it won't be on prime-time television, a video aimed at selling accounting careers to high-school students will be released next month by the accounting institute, says Mr. Elam. "We're trying to plant the seed that the accounting profession is a place where bright kids can find happiness."

Computerization of Student Records Raises Issues of Security and Confidentiality

Continued from Page A1
words secret, log off computers when they are left unattended, and keep computer screens out of students' view.

To prevent unauthorized alterations in student files, Ms. Askins said registrars should require that all changes be documented in detail and that only a few university offices be permitted to update records. Faculty members may review the files of students they are advising and students may see their own records, but neither group should be permitted to alter files, she said.

Offices in which workers are allowed to update records must be particularly careful if they employ students or relatives of students, Ms. Askins said. She recommended printing the records of student employees when they are hired and then setting the papers aside. They can later be compared to the versions in the computer if students are accused of wrongfully altering their files.

Ms. Askins also recommended that administrators conduct "background checks" on job applicants who will be authorized to alter records. "If you're employing someone in a sensitive-data situation, it's worth the wait," she said.

Mr. Luker, of the University of Texas, emphasized that employees represented the greatest threats to the accuracy and secrecy of student records.

Locks on New Terminals

While much attention has been paid to securing systems against hackers—intruders who enjoy gaining unauthorized access to computers—their threat to student files is minimal because many administrative computers are not accessible by telephone, Mr. Luker said.

At Texas, where 1,000 people in 127 offices are able to view students' records, the university has attempted to guard against improper use by limiting the ability to update records to 60 offices.

Texas has begun installing locks on its new terminals so that they can be used only by people who have keys. The university also disconnects terminals from the central computer when they're not in use, and new terminals are programmed to go blank if 30 seconds have elapsed since a key was pressed.

Paul W. Berwick, assistant registrar at Colorado State University, urged registrars to evaluate critically all requests for electronic access to student records. "The fewer people who have the passwords and control to go into any of these screens, the better off we are," he said.

Faculty members at Colorado State can gain access to student files only if their departments pay computer charges, Mr. Berwick said. But a new student-records system to be installed within two years should provide free access to all professors, he said.

Other conference participants played down the threat to the security of computerized records, reporting that they had no problems even when they made files accessible to students.

David P. Ridenour, associate registrar at Indiana State University, said a system established at the university in 1987 to give students access to their records from two public terminals on the campus had not led to violations of the confidentiality of files.

'An Equal Partner'

While the university is concerned about confidentiality and has built safeguards into the system to make sure that students don't look at each other's records, Mr. Ridenour said, such concerns should not overshadow the benefits to the student—and to the registrar—of having records in electronic form. The computer system, he added, has helped registrars improve the accuracy of student files and changed attitudes about responsibility for them.

Students are now expected to check their records and to notify the registrar of any changes that may be necessary, he said. "We have entered an era in which the student is an equal partner in maintaining the integrity of his computer account."

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A budget settlement apparently will avert a tuition increase at New York's two public-university systems: Page A19.

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LASKI/SIPA PRESS

Student demonstrators swept into Tiananmen Square a day before Mikhail S. Gorbachev came to Beijing.

Student Protests in China Explode Into Mass Uprising

By LOUISE BRANSON

BEIJING

Student power turned into people power here last week, transforming a momentous state visit by Mikhail S. Gorbachev into a humiliating sideshow and threatening to bring the Chinese government to its knees.

By the time the Soviet leader left Beijing on Thursday after four tumultuous days, more than a million people had joined student activists in the biggest pro-democracy demonstration yet in a month of unrest.

At midweek, the presidents of seven universities in Beijing publicly endorsed the protest, as did the heads of several research institutes.

The popular uprising forced China's leaders to move clearly, for the first time, toward one of the students' principal demands—a direct dialogue about political and bureaucratic reforms.

Responding to escalating public outrage, Communist Party General Secretary Zhao Ziyang, Prime Minister Li Peng, and two other high officials paid predawn visits to student hunger-strikers in hospitals where they were being treated.

"I understand you speak Russian," said Mr. Gorbachev to Mr. Yang. A report by two Chronicle correspondents: A35.

Mr. Li—whose ouster, along with that of China's paramount leader, Deng Xiaoping, was being boldly demanded by demonstrators—also met with a group of student leaders to open the dialogue. But the talks, inside the Great Hall of the People, collapsed after less than an hour, and it was not clear whether a compromise could be found. Indeed, some observers saw new hints of a crackdown in remarks by Mr. Li to the effect that the situation in China was getting out of control.

The leadership's initial concessions were aimed at turning back a tide of discontent never seen before in 40 years of Communist rule. The moves came after student demonstrations erupted in scores

Continued on Page A35

A PUBLIC SPECTACLE

Cold-Fusion Brouhaha Signals Shifts in the Way Science Proceeds

By CHRIS RAYMOND

When scientists fight, are they just being good scientists? Or are they exhibiting symptoms of deep trouble in a profession long exalted for its separation from the baser concerns of business and politics?

Scholars who spend their time observing the inner workings of science pondered those questions as they examined the growing controversy over the way scientists have dealt with recent claims that fusion had been achieved at room temperature.

After the electrochemists B. Stanley Pons and Martin Fleischmann announced in March that they had created fusion in a flask of water, many casual observers expressed shock, dismay, and even anger at the resulting spectacle of scientists attacking each other's ideas in public.

But for sociologists and historians of science, the spectacle seemed hardly remarkable. After all, they note, history is strewn with cases of scientists' jockeying with their peers to be the first to announce an important finding or to refute another's claim.

Some Troubling Elements

Sometimes "the rush to get to press with a major breakthrough becomes a higher priority than making sure you've got what you say you've got," says Michael J. Mahoney, a professor of education at the University of California at Santa Barbara who has studied the psychology of scientists.

Indeed, the cold-fusion episode may be serving the useful purpose of showing the public the complexity of scientific inquiry, Mr. Mahoney and other science observers say.

But those same observers detect some relatively new, and potentially troubling elements—elements that suggest a change in scientific etiquette and evaluation, and an increasing shift toward "pork barrel" politics in science. For good or bad, such shifts could have repercussions for the scientific profession and for the public's view of scientists.

"The character of statements being made even in very conservative outlets is quite extraordinary," says Marcel C. La Follette, referring to the willingness of some of the scientists in the affair to

Continued on Page A8

MARGINALIA

Headline in the Charlottesville (Va.) *Daily Progress:*

NUDISTS'
OPTION
IS SUIT

■

In the story that followed, we liked these passages:

" 'These people are being treated unfairly, and that's not fair,' Berry said."

and

"Now, both suits will be pressed at the same time, he said."

■

A flyer describing "The Teaching of Psychology," a symposium at Western Washington University, lists, for Saturday May 20, "Exchange sessions, demonstations."

"Train depots in hell?" a reader asks.

■

The room-reservation form from the Seattle Sheraton Hotel & Towers for those planning to attend the August meeting of the Association on Handicapped Student Service Programs in Postsecondary Education says:

"Towers is our luxury hotel within the hotel for VIP's and those with discriminatin taste."

That's us, and that's where we're plannin to stay.

■

From the "Academically Speaking" column in the Westport (Conn.) *News:*

"SCOT B. BERNSTEIN earned his MAMBA in Business Administration and Management . . ."

Shall we dance?

■

That reminds us of a notice in our own Bulletin Board pages:

"Dance: Bowdoin College, Brunswick, Maine. The Division of Dance, Department of Theater Arts invites application for a one semester full-time sabbatic leave replacement, beginning September 1989. Responsibilities include administering the Division of Dance; coordinating and producing one convert . . ."

To Terpsichore, may we assume?

■

Note in the program of a concert by the Florida State University School of Music's symphonic band:

"Ellen Taaffe Zwilich, a native of Florida and a graduate of Coral Gables High School, began composing as a child and by the time she was 18 had written several orchestral works. . . .

"Ms. Zwilich has been internationally recognized as one of America's important creative talents. Indeed, Florida State University recognized her as one of their 'Grads Made God' in 1986! What higher praise? !"

It's hard to imagine any. —C.G.

In Brief

Suit Seeks $50-Million for Paralyzed Student

The father of a University of Oklahoma student has sued the local chapter of the Phi Delta Theta fraternity and its national organization for $50-million. The federal-court suit seeks to compensate Eric A. Mansfield for the broken neck he suffered when he dived from a platform into a pool the fraternity had built.

On his son's behalf, William Mansfield is seeking $30-million in compensatory damages and $20-million in punitive damages. Doctors describe Eric Mansfield as quadriplegic.

Eric Mansfield is not a member of the fraternity, which had set up the pool the day before a party. Local police investigators said that the pool did not violate any city ordinances and that they had found no evidence of "criminal activity."

The suit charges fraternity members with failing to warn people that the pool was dangerous. A spokesman for the local chapter said Eric Mansfield had been warned repeatedly not to dive.

President's Office Held by Stanford Protesters

Police arrested 56 students at Stanford University last week after members of the Students of Color Coalition took over the office of the university's president, Donald Kennedy. It was the first such sit-in on the campus since 1968.

The students, most of them members of minority groups, used chains and furniture to barricade themselves in the office. Police entered a window and broke up the demonstration after about eight hours. The students were charged with trespassing and failure to disperse, both misdemeanors. They all were released.

Students held large rallies on the campus before and after the sit-in to press their demands for, among other things, the hiring of more minority faculty members and the requiring of an ethnic-studies course.

Mr. Kennedy, who was not present when his offices were taken over and refused requests to meet with the protesters' leaders, said the university was making plans to address many of the coalition's concerns.

Colgate Faculty Votes to Ask Fraternity Ban

Faculty members at Colgate University have voted to recommend that fraternities and sororities on the campus be closed within the next five years. The action came in the wake of allegations of illegal drug use, hazing, and sexual assaults by members of one fraternity.

The recommendation to close the university's 10 fraternities, five sororities, and one coed organization, will be presented to the board of trustees at the end of this month. About half of Colgate's 2,700 students belong to a fraternity or sorority and about 400 live in fraternity houses.

University officials have suspended Delta Kappa Epsilon while they investigate the alleged activities described in a diary reportedly written by members. It was stolen from the fraternity last month.

The faculty also recommended that the university take control of the fraternity system's social and living arrangements and close any fraternity or sorority that repeatedly violates university regulations.

COMMENCEMENT 1989

FRED FAULK, MISSISSIPPI STATE U.

Three students at Mississippi State University share an umbrella on their way to graduation exercises.

TEXAS A&M U.

President Bush at Texas A&M University commencement, one of three at which he spoke this month.

Salem State President Resigns After 10 Months

The president of Salem State College has resigned before a court hearing on charges that he owed almost $20,000 in child-support payments to an ex-wife and their 11-year-old son. He had held the position for 10 months.

Rolando E. Bonachea said his resignation was "in the best interests of the institution." He contended that support checks that he sent to his former wife had been returned to him with no forwarding address after they could not be delivered.

"This has been an unfortunate incident for everyone, but public leadership requires the ability to exercise moral authority," said Paul Tsongas, chairman of the Massachusetts Board of Regents of Higher Education.

Mr. Bonachea followed four other state-college presidents in Massachusetts who had left office in the past three years under fire on a variety of charges, including abuse of college trust funds and sexual misconduct.

Mr. Bonachea was criticized for spending $6,400 in trust-fund money on personal guests at his inauguration. His predecessor was criticized by state officials for using $63,000 in college funds to produce a booklet about himself on his retirement.

24 University Employees Complain to Labor Dept.

A complaint has been filed with the U.S. Department of Labor by 24 non-academic employees against the University of California at Riverside, charging it with discrimination, harassment, and retaliation on the job.

A spokesman for the San Francisco regional office of the Labor Department said the employees hold administrative positions and contend they were discriminated against since 1980 on the basis of sex, race, age, national origin, and disability.

The department was reviewing the complaint to determine if a formal investigation should be conducted, the spokesman said. The university last week had not been notified of the complaint by the agency and had no comment.

Sit-In at Michigan State Ends With Accord

A sit-in by black students at Michigan State University ended last week when negotiators produced a 36-point plan to improve race relations on the campus.

Under the agreement that ended the protest on the first floor of the administration building, the university pledged to improve recruitment and retention of minority students and faculty members, create more scholarships for minority students, and hold special forums on racism.

Most of the 36 items were included in a plan that John A. DiBiaggio, the university's president, announced in April to increase the number of minority students and faculty members on the campus, a spokesman said.

Editor Settles Lawsuit Against Cal. State Campus

A student journalist who filed a freedom-of-speech lawsuit against California State University at Northridge announced a settlement last week.

James J. Taranto, who is now a public relations associate at the Heritage Foundation, sued the university last year after it suspended him from the newspaper for two weeks without pay.

The suspension, which occurred in 1987, came after Mr. Taranto wrote an opinion article without permission from the paper's faculty adviser. The article criticized the university for suspending another student editor who had printed a cartoon critical of affirmative action.

Under the terms of the settlement, Mr. Taranto's suspension was removed from his academic record and he received $93 in back pay.

Mr. Taranto announced the settlement at a press conference that brought together Morton Halperin, director of the Washington office of the American Civil Liberties Union, and Edwin Meese, III, the former U.S. Attorney General. Both supported Mr. Taranto's suit.

Officials Investigating U. of Washington Fires

Officials of the Seattle fire department and the University of Washington are investigating a recent spate of early-morning fires on the university's campus. Several blazes, most of them small,

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FACT FILE: Average Faculty Salaries by Rank in Selected Fields, 1988-89

	281 Public Institutions						470 Private Institutions					
	Professor	Associate professor	Assistant professor*	New assistant professor	Instructor	All ranks	Professor	Associate professor	Assistant professor*	New assistant professor	Instructor	All ranks
Accounting	$52,617	$43,420	$37,578	$40,322	$26,326	$41,916	$50,310	$41,020	$34,285	$36,587	$24,249	$38,787
Agribusiness and agricultural production	44,304	34,867	29,823	30,535	21,811	37,235	—	27,172	—	—	—	—
Anthropology	44,869	34,341	28,534	25,776	—	37,882	48,942	35,868	28,469	25,687	23,859	37,432
Architecture and environmental design	48,681	39,331	32,143	33,057	—	40,774	50,252	38,157	29,338	25,000	21,058	38,757
Area and ethnic studies	47,801	38,935	31,776	—	—	40,108	47,111	39,303	27,300	—	—	39,702
Audiology and speech pathology	44,734	36,092	28,301	26,991	23,322	35,441	47,227	34,594	29,124	—	—	35,588
Business administration and management	49,685	41,750	36,194	38,351	24,998	40,726	54,363	40,185	33,886	33,537	24,954	40,396
Business and management	50,743	41,906	36,450	38,474	27,837	41,306	52,445	41,816	34,723	35,522	26,404	40,919
Business economics	47,431	38,919	33,542	32,887	24,747	39,492	47,595	37,549	31,636	32,554	25,863	37,365
Chemistry	45,678	36,019	29,434	28,558	22,017	39,582	45,983	33,482	27,370	25,540	22,472	38,302
Communications	44,701	35,213	28,694	27,877	23,049	33,812	42,738	35,189	27,387	26,648	22,973	32,289
Communications technologies	47,517	35,469	30,444	—	25,828	35,997	40,960	32,611	27,791	—	—	30,453
Computer and information science	50,150	42,006	35,504	36,805	26,054	39,326	49,803	39,162	32,153	33,513	25,154	36,774
Curriculum and instruction	43,099	36,131	29,302	27,167	24,696	35,785	45,502	36,746	26,471	—	—	34,930
Dramatic arts	41,150	33,946	27,192	25,711	21,962	34,271	40,024	31,825	26,175	24,519	22,540	30,839
Education	43,945	35,916	28,930	28,004	22,275	36,250	42,236	33,110	26,745	25,764	20,633	33,470
Education administration	45,545	36,217	29,645	2[illegible],600	—	40,181	48,038	33,999	27,662	—	—	37,839
Engineering	53,998	43,520	36,847	36,780	26,418	45,407	61,218	45,168	39,003	37,473	28,475	51,031
Engineering technologies	44,223	37,285	31,151	31,648	25,253	35,522	40,775	35,283	30,603	—	25,214	33,694
Fine arts	42,754	33,746	28,006	26,519	23,534	35,696	40,347	31,190	25,828	24,305	22,132	31,898
Foreign languages	44,525	35,057	28,098	26,274	22,871	35,128	42,968	33,552	27,004	25,432	22,407	33,197
Geography	44,798	35,278	29,080	27,645	22,905	37,523	47,303	33,650	27,763	—	—	36,896
Geological sciences	45,277	35,931	29,583	27,226	23,221	38,767	49,734	36,404	29,241	—	—	41,880
Health services technologies	45,439	35,915	28,406	27,520	24,225	32,739	45,654	35,540	29,833	26,281	23,753	32,663
History	44,429	35,207	27,732	25,772	22,798	38,937	43,594	35,007	26,864	25,467	23,019	36,772
Home economics	44,218	34,985	29,094	27,129	22,594	33,036	38,643	31,442	26,447	—	21,541	28,617
Letters	43,373	34,648	27,692	25,511	20,840	34,102	42,604	32,704	26,043	24,927	21,451	33,432
Library and archival sciences	45,146	34,751	28,316	25,982	21,406	31,430	41,744	31,793	26,532	—	21,193	30,127
Life sciences	44,434	35,543	29,402	27,912	21,980	38,457	43,192	32,658	27,449	26,820	21,384	35,853
Mathematics	45,813	36,686	30,367	29,795	22,031	36,135	47,109	34,714	28,596	28,724	21,862	35,810
Multi-interdisciplinary studies	45,055	36,588	28,185	26,136	24,908	35,347	44,090	33,398	27,045	—	20,051	34,803
Music	43,415	36,437	31,623	27,632	23,887	36,586	39,332	30,838	25,648	25,591	21,562	31,698
Nursing	45,492	35,227	29,465	27,317	24,399	31,301	39,915	31,044	26,176	25,105	22,675	27,933
Occupational therapy technology	—	34,733	30,729	—	—	32,940	—	36,498	27,625	—	22,066	31,483
Philosophy and religion	44,808	35,138	28,521	27,144	22,365	37,596	40,888	32,209	26,851	25,458	20,535	34,242
Physical education	44,259	35,920	29,940	26,911	24,298	33,887	38,583	32,013	26,390	24,468	22,332	29,289
Physical science	44,402	34,916	29,321	27,332	22,810	37,204	49,142	36,186	28,268	26,254	22,651	40,127
Physical therapy technology	—	38,287	30,662	30,368	—	33,874	—	36,164	30,465	—	26,573	31,765
Physics	46,294	37,437	30,879	29,792	22,863	40,171	51,001	36,614	29,846	27,935	20,064	42,229
Political science	44,580	35,016	28,195	26,125	23,191	37,273	47,115	34,692	27,868	26,881	24,154	37,468
Psychology	44,640	35,544	28,776	26,978	23,317	37,777	43,782	33,161	27,111	25,962	21,276	35,165
Public affairs and services	43,600	35,300	28,909	28,747	22,208	34,200	[illegible],484	31,347	27,392	26,098	19,248	33,028
Reading education	42,364	35,231	29,169	—	22,762	35,310	—	31,721	—	—	—	—
Secretarial and related programs	41,417	34,586	28,829	30,728	22,891	32,415	—	29,899	26,102	—	18,464	24,466
Social sciences	44,984	35,093	28,977	27,505	23,178	36,236	46,662	34,475	28,578	27,676	21,288	36,581
Sociology	44,689	35,638	28,165	26,107	23,012	36,621	42,694	31,987	27,486	26,610	20,722	33,601
Special education	44,588	35,546	28,831	27,114	23,760	36,397	41,017	32,683	25,009	25,160	19,797	31,212
Student counseling and personnel services	45,037	35,635	29,116	27,404	26,593	38,264	44,378	35,527	28,618	—	—	37,859
Teacher education, general programs	43,072	35,146	28,774	27,295	22,842	35,960	37,159	30,314	25,412	25,042	21,122	29,897
Theology	—	—	—	—	—	—	37,803	31,716	26,514	24,964	22,671	32,259
Visual and performing arts	42,078	34,032	27,250	25,649	[illegible],592	33,392	41,141	32,620	26,787	26,610	22,359	32,564
Vocational and technical education	42,862	35,560	29,290	27,960	24,801	34,982	—	—	—	—	—	—
All major fields	**$45,375**	**$36,665**	**$30,427**	**$29,379**	**$23,610**	**$36,967**	**$45,645**	**$34,881**	**$28,768**	**$28,002**	**$22,624**	**$35,874**

Note: Data are based on reports from 281 public institutions that are members of the American Association of State Colleges and Universities and from 470 private colleges and universities.
* Includes data for new assistant professors
— Indicates fewer than 10 positions in a rank or fewer than 50 of all ranks. The data are included in the averages for all ranks and for all fields.

SOURCE: COLLEGE AND UNIVERSITY PERSONNEL ASSOCIATION

Professors of Engineering Continue to Earn the Highest Average Salaries

By DEBRA E. BLUM

WASHINGTON

Salaries of faculty members in engineering topped the pay scales in academic 1988-89, the sixth consecutive year they had done so, according to an annual survey of faculty salaries by discipline.

At private institutions, engineering professors earned an average of $51,031, 42 per cent more than the average salary of faculty members in other disciplines. At public institutions they earned an average of $45,407, 23 per cent more than the average of all others, the survey found.

For professors of all ranks and disciplines, annual salaries averaged $36,967 at public institutions and $35,874 at private institutions, according to the survey, which was conducted by the College and University Personnel Association.

'Hard to Hire' Disciplines

Along with engineering professors, faculty members in other "hard to hire" disciplines such as accounting and physics, continued to earn higher-than-average salaries. But in disciplines where there was less competition for people, such as library sciences, faculty salaries remained at the bottom of the scale.

"The hot disciplines are still hot and the cold ones continue to get colder," said Richard D. Howe, a professor of leadership and higher education at Appalachian State University, who was the director of the study.

He suggested, however, that some of the newer disciplines with relatively low overall salary averages may see their pay rise as professors move up in rank.

At private universities, new assistant professors in communications, considered a relatively new discipline, earned slightly more than new assistant professors in chemistry. But when all ranks were taken into consideration, chemistry professors earned higher-than-average salaries and communications professors earned lower-than-average salaries—partly because there are fewer senior faculty members in communications, said Mr. Howe. Only 19 per cent of the faculty members teaching communications in private colleges and universities were full professors, compared with 51 per cent in chemistry.

"As disciplines such as communications mature and the faculty mixes change, average salaries will rise," Mr. Howe said.

As in past years, the study found that faculty salaries in some disciplines had become compressed—that is, pay increases and even total salaries for senior professors lagged behind those of faculty members with less seniority. For example, new assistant professors of accounting at public institutions, who earned 37 per cent more than new assistant professors in other disciplines, also earned an average of almost $3,000 more than colleagues of the same rank who had been teaching accounting longer.

> "As disciplines such as communications mature and the faculty mixes change, average salaries will rise."

Lois B. DeFleur, provost of the University of Missouri at Columbia, said salary compression was a serious problem in fields such as business and engineering, in which colleges and universities compete with each other and with industry for young scholars. She said it might drain university resources or adversely affect faculty morale when starting salaries offered to new faculty members matched—or even exceeded—those paid to long-standing faculty members.

"It's something we have to do, though," she said.

Average faculty salaries at public institutions were derived from a survey of 73,412 faculty members at 281 institutions that are members of the American Association of State Colleges and Universities. Information for salaries at private institutions came from a survey of 45,698 faculty members at 470 institutions. The figures represent nine- or ten-month salaries for full-time faculty members, and exclude fringe benefits and summer earnings.

The study, which examined salaries in 51 disciplines, confirmed trends identified in the association's previous surveys. Among them:

- Faculty members of all ranks—except full professors—again fared better at public institutions than they did at private institutions.
- Faculty members whose salaries were covered by collective-bargaining contracts at public colleges and universities again earned more on the average than their counterparts at public institutions who did not have such contracts.

Professors on unionized campuses earned an average of 16 per cent more than those on non-unionized campuses—up from a 13 per cent difference reported in the association' study last year.

- Faculty members took hom slightly larger paychecks over all thi year than last, confirming the findings of an annual salary survey by th American Association of Universit Professors (*The Chronicle*, April 26)

For example, nursing professors o all ranks, who were among the lowest-paid professors, earned an average of $31,301 at public institutions 6.2 per cent more than they did th previous year.

Union and Non-Union Campuse

Mr. Howe noted that the salary differences between professors wit collective-bargaining contracts an those at non-union campuses wer most evident among the higher faculty ranks. On unionized campuses full professors earned an average o 13 per cent more than professors o the same rank without collective bargaining, while assistant professor earned 6.7 per cent more.

Copies of the 1988-89 faculty-salary surveys by discipline and rank fo both private and public institution are available for $25 for members an $50 for others from the College an University Personnel Association 1233 20th Street, Suite 503, Washington 20036; (202) 429-0311. College may also purchase special studie comparing their average faculty salaries with those of a group of at leas 10 similar institutions.

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News Summary

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Scientists began the first federally approved test to transfer genetically altered cells into humans: Page A4.

Policy researchers are "shifting the terms of the debate" on women's issues: Page A4.

The head of the U. of South Carolina represents to many a new species of college president: Page A9.

Innovative colleges have learned that their new approaches can bring problems: Page A9.

Universities are finding that state courts and legislatures are looking anew at "sunshine laws": Page A13.

Odd alliances are being formed to lobby for funds from Congressional spending committees: Page A14.

Illinois's colleges were jubilant when a key legislator changed his mind about a tax increase: Page A14.

Congress plans to overhaul a job-training program to make it responsive to those who have the toughest time finding work: Page A15.

The Howard Hughes Medical Institute awarded $61-million to improve science education: Page A19.

A community tried to stave off "Doomsday" by bidding for a local campus at auction: Page A19.

College health officials are reporting dramatic increases in the number of students with H.P.V., a sexually transmitted disease: Page A23.

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SOME AMERICANS DELAY VISITS

As Beijing Protests Continue, Solidarity Is Shown in U.S.

Students in Beijing's Tiananmen Square (*left*) continued their protest last week, playing Beethoven's Fifth Symphony over loudspeakers to keep up morale. But leaders of the demonstration were divided among themselves over how to proceed.

In the United States, thousands of Chinese students took to the streets in a show of solidarity with the uprising in their homeland. Meanwhile, some American administrators, faculty members, and students postponed plans to go to China.

- Some of the students in Beijing advocated beginning a dialogue with the government; others said they wanted to continue their protest: A27.
- Chinese students in the United States mounted a well-organized and effective campaign of support from coast to coast: A29.
- Some Americans who went ahead with plans to go to China thought the situation would normalize soon or did not fear for their safety: A31.

Growth in Corporate Aid to Public Colleges Has Many Private Institutions Worried

By LIZ McMILLEN

A growing share of the corporate philanthropic dollar is going to public colleges and universities, a fact that has many private institutions worried about what they see as an erosion in their support.

Corporate giving to four-year public colleges has grown steadily over the years. In 1987-88 they garnered slightly more than half of all the money that corporations gave to higher education.

In the same year, when the stock-market crash dampened overall giving to higher education, corporate gifts to public colleges rose by 8 per cent, while private colleges saw a 6-per-cent decrease.

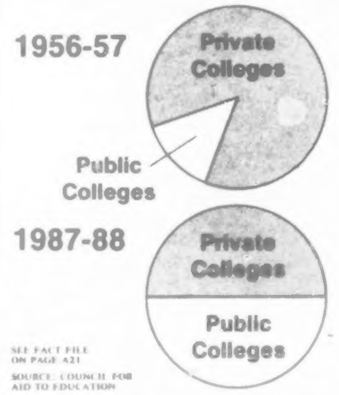
Those trends are a major change from 25 years ago, when public institutions received less than a third of total corporate giving, according to the Council for Aid to Education, which collects information about voluntary support of higher education.

Public colleges, which have become aggressive and sophisticated fund raisers in recent years—and not just for business donations—welcome the flow of corporate dollars to their campuses. They say it's about time that corporations noticed that the "publics" educate a large share of the corporate workforce and conduct research of vital interest to business.

Their private counterparts are not

Continued on Page A21

Public-Private Share of Company Giving



SEE FACT FILE ON PAGE A21

SOURCE: COUNCIL FOR AID TO EDUCATION

Kentucky Case Shows Cooperation With NCAA Can Head Off Harshest Penalties; Reform of Big-Time College Athletics a Subject of Growing Concern in Congress

Concern in Congress

By DOUGLAS LEDERMAN

WASHINGTON

The administration of college sports, a traditional domain of universities and their sports-governing bodies, is a subject of growing scrutiny in Congress.

The Congressional concern appears to be fueled by an increasing public sense that big-time college sports are plagued by fundamental problems.

It has led legislators to hold two hearings this month on the role of sports in higher education, and to introduce bills that would require colleges to publish the graduation rates of athletes and other students. Most lawmakers say, however, that it is too early to tell whether all the interest will translate into a push for more substantive federal action. That depends in great part, they say, on the extent to which universities and governing bodies such as the National Collegiate Athletic Association work on their own to make changes.

"We do not want the federal government to intervene inappropriately in higher education—we haven't in the past and we don't want to now," said Rep. Pat Williams, the Montana Democrat who heads the House Postsecondary Education Sub-

Continued on Page A24

NCAA penalties

By SUSAN OBERLANDER

The penalties levied by the National Collegiate Athletic Association against the University of Kentucky's men's basketball program this month offer the strongest proof yet that universities can avoid the association's harshest penalties if they cooperate with N.C.A.A. investigators, college-sports officials said.

By conducting a rigorous internal inquiry, admitting that it had violated some rules, and forcing the resignations of top sports officials, Kentucky was granted

Continued on Page A24

MARGINALIA

Sign on a classroom door at Memphis State University:

"UNPH 4200 Intel. Life in the Universe (Dr. Shugart) has been cancelled today. Have a nice spring break."

How *can* we, after news like that?

■

A postcard announcing a luncheon of the Dartmouth Club of Greater Miami announces that the speaker will be the "football couch."

■

Notice in *Creighton Today*, a newsletter at Creighton University:

"Electrical power to the Creighton campus will be shut down at 10 p.m. this Friday. . . .

"All computer users on campus are reminded to turn off their computers Friday so they will not lose their memories."

It will take more than that, for *some* of us.

■

Thought for today, from the University of Illinois (Urbana-Champaign) *Daily Illini:*

"The biggest problem with sports today is not the moral fiber of the athletes who are involved in the long litany of scandals. The problem lies with us, the fans, who expect these players to shoulder the yolk of the super-human ideals that we force upon them."

And to do it without getting egg on their faces.

■

From the instruction sheet for participants in commencement ceremonies at Illinois Central College:

"INVOCATION BY MINISTER. Following the Invocation, men replace caps. Everyone is eated."

And nobody has even been *graduated*, yet.

■

From a letter to the editor of *Science:*

". . . A behavioral science concept incompatible with evolutionary biology is just as bizarre as a chemical reaction incompatible with basic physics would be. A social science 'principle' that is incompatible with known psychology is as wrong as a neurophysiology with impossible biochemistry. Chemists and neurophysiologists do not often make such erors, of course—their training guarantees it. . . ."

Which can't always be said of a journal's proofreader.

■

Ad in the New York *Times*, seeking a director of admissions for the Dalton School:

". . . The successful candidate will also have no outstanding managerial & interpersonal skills. . . ."

In a seller's market, who needs 'em?

—C.G.

In Brief

People's Park March Ends in Berkeley Riot

A torchlight march to commemorate the 20th anniversary of the People's Park protest in Berkeley, Cal., turned into a riot when about 3,000 youths set fires and looted stores along one of the city's main thoroughfares.

Six demonstrators and an unspecified number of police officers and firefighters were injured and 12 persons were arrested during the late-night rampage. The police said 28 businesses along Telegraph Avenue had been damaged and 10 were looted. Thousands of dollars' worth of merchandise was reportedly taken.

The incident was the latest in a series of recent protests at People's Park, which is owned by the University of California and may be developed into a student-housing complex. The march was organized by First Day of Spring, a local coalition of homeless people and others who want the site to remain a park.

In 1969, a riot broke out when police attempted to remove people living in the park. Then-Gov. Ronald Reagan sent in National Guard troops, who arrested more than 1,000 people.

Cornell Suspends Student in Computer 'Virus' Case

Cornell University has suspended Robert T. Morris, the 24-year-old computer-science graduate student who last fall brought a national computer network to its knees.

Mr. Morris, who has been on a leave of absence from Cornell since December, was suspended until the beginning of the 1990 fall semester. He was in his first year of graduate study.

Last month Cornell identified Mr. Morris as the creator of the computer program that kept reproducing and sending itself out over a national network until it clogged the circuits of some 6,000 computers on campuses and in research laboratories around the country.

The U.S. Department of Justice and federal officials have not yet decided whether to take legal action against Mr. Morris.

What They're Reading on College Campuses

		Previous Survey
1.	The Satanic Verses, by Salman Rushdie	1
2.	Yukon Ho! by Bill Watterson	2
3.	Chaos, by James Gleick	10
4	Love in the Time of Cholera, by Gabriel Garcia Márquez	—
5.	The Drawing of the Three, by Stephen King	—
6.	The Shell Seekers, by Rosamunde Pilcher	6
7.	Wildlife Preserves, by Gary Larson	—
8.	The Essential Calvin and Hobbes, by Bill Watterson	—
9.	Codependent No More, by Melody Beattie	—
10.	The Bonfire of the Vanities, by Tom Wolfe	9

The Chronicle's list of best-selling books was compiled from information supplied by stores serving the following campuses: American U., Baylor U., Bucknell U., Carleton College, Carnegie Mellon U., Case Western Reserve U., Central Michigan U., Denison U., Idaho State U., Indiana U., Kent State U., Lawrence U., Lehigh U., Mankato State U., Montana State U., Pennsylvania State U., Portland State U., Princeton U., Stanford U., Syracuse U., Tarrant County Junior College, Tulane U., U. of Alaska at Anchorage, U. of California at San Diego, U. of Hawaii, U. of Illinois at Urbana-Champaign, U. of Iowa, U. of Maryland–Baltimore County, U. of Missouri at Columbia, U. of Nebraska at Lincoln, U. of New Orleans, U. of Notre Dame, U. of Pittsburgh, U. of Puget Sound, U. of Virginia, U. of Washington, U. of Wisconsin at Madison, and Xavier U. (Ohio).

Reports covered sales of hardcover and paperback trade books in April.

UCLA Gets Court Order Restraining Protesters

The University of California at Los Angeles has obtained a temporary restraining order from a state court to prevent future demonstrations on the campus by an animal-rights group.

The order, issued by Superior Court Judge Dzintra Janavs, prohibits Last Chance for Animals from demonstrating on the campus. The group led a campus protest in April against U.C.L.A.'s use of animals in laboratory research; 20 of its members were arrested.

The complaint by the university said the behavior of the group's members had been "deliberately disruptive and malicious, and constitutes harassment, civic conspiracy, trespassing, and a violation of the civil rights of U.C.L.A. faculty" members. Two professors' homes were picketed by the group after its protest.

The order prohibits the group from picketing within 100 yards of faculty members' homes and from blocking any academic, administrative, or other facility on the campus. A hearing was scheduled for late last week on the university's request for a preliminary injunction against the group.

Accreditation Dispute Causes Graduation Delay

Officials of CBN University have postponed that institution's law-school graduation until the American Bar Association makes a final decision on whether to accredit the school.

The graduation of the 51 law students is now scheduled for June 30. The A.B.A. suggested that the university wait until the association's Section of Legal Education and Admission to the Bar meets on June 3. The CBN school's accreditation is expected to be on the agenda.

Third-year law students sued the A.B.A. in April, charging that their freedom of religion had been violated by the delay.

The law school lost its accreditation in 1986 when it moved from Oral Roberts University to CBN, which was founded by the television evangelist Pat Robertson. The A.B.A. cited financial concerns in delaying the school's accreditation.

Officials of the law school said they were optimistic that it would receive its accreditation.

Gettysburg Trustees Reject Fraternity Ban

Gettysburg College's Board of Trustees has decided to strength-

National Panel Calls for Overhaul of Training for School Administrators

By BEVERLY T. WATKINS

WASHINGTON

A national board representing 10 professional-education associations has sharply criticized the nation's 500 graduate programs in school administration and called for a complete overhaul of the professional preparation of principals and administrators.

In a report released here last week, the National Policy Board for Educational Administration called the graduate programs "irrelevant, outdated, and unchallenging." It recommended that universities revamp their curricula to include a common core of knowledge and skills that all educational administrators must have, and provide a core of full-time faculty members to teach it.

The board called for tougher admission standards for professional-preparation programs and for more vigorous recruiting of better-qualified candidates, including more members of minority groups.

'A Mainstream Proposal'

In the report, "Improving the Preparation of School Administrators: An Agenda for Reform," the board recommended that a doctoral degree in educational administration, along with one year of full-time academic study and one of clinical work, be required for certification and state licensure for school administrators.

"This is a mainstream proposal designed to attract good people to the field of educational administration," said David L. Clark, the board's executive secretary.

"Right now, most programs take what they can get. These are not the most able members of the teaching and education profession, and they are not a very diverse group," he said.

"Good people are attracted to good programs," said Mr. Clark, who is professor of education at the University of Virginia.

In its report the board said most candidates for school administration were "part-time students and full-time employees," which means that they crowd their courses into the shortest possible period and either arrange their clinical experience to fit their work schedule or skip it altogether.

'Inadequate and Banal'

According to the report, the usual grade for students is an A, not because they have reached established standards, but because "faculty have given up on holding tired, end-of-the-day students to typical graduate performance." The report called these students' doctoral dissertations "methodologically inadequate and banal."

The report laid part of the blame for this mediocrity on institutional greed.

"The lucrative features of certification courses—high enrollments, low cost—have induced colleges and universities to offer random pieces of programs without adequate facilities or faculty," said the report. "Institutions with no other commitment to training in the education profession offer continuing-education courses in educational administration."

The report is available for $6.50 from the National Policy Board for Educational Administration, University of Virginia, Curry School of Education, 405 Emmet Street, Charlottesville, Va. 22903; (804) 924-0583.

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en the institution's Greek organizations, rejecting a faculty request to dissolve them.

Kenneth F. Mott, an associate professor of political science who led the faculty's fight, called the action by the trustees "disappointing."

The board approved a campus panel's recommendations aimed at better integrating fraternity and sorority members into the campus community and discouraging drug and alcohol abuse. The recommendations call for all beer taps in Greek houses to be dismantled.

The trustees also pledged to raise $10-million for campus improvements, $6-million of which would go to the student union.

In March 1988, Gettysburg's faculty voted 63 to 23 to ask the board to dismantle the Greek system.

Editors Pull Paper With Lewd Photograph

The editors of the student newspaper at the University of Massachusetts at Amherst stopped distribution of all copies of one day's issue this month when they discovered that a lewd photograph had been substituted for another before the paper was printed.

Some 7,000 copies of the *Daily Collegian*, distributed before the tampering was detected, were recalled. The newspaper has a circulation of 21,000.

The photograph of a naked man in a lewd position was substituted for one of the photographs in a full-page photo essay, the editors found.

In addition, an obscene cartoon strip was run in place of the newspaper's regular cartoon, *Yeast Head*.

Correction, Clarification

■ A table of faculty salaries (*The Chronicle*, May 3) contained incorrect information for Mississippi State University and for Parks College of Saint Louis University. For 1988-89, average salaries at Mississippi State are as follows: professor, $46,600; associate professor, $37,500; assistant professor, $32,700; and instructor, $23,900. At Parks, the salaries are $34,500; $29,100; $26,600; and $22,100.

■ An article on the federal budget blueprint for fiscal 1990 (*The Chronicle*, May 24) did not include complete information on spending cuts that must be made in the Stafford Student Loan program. The House must recommend cuts totaling $40-million, and the Senate must recommend cuts of $70-million. Representatives of the two houses must meet later this year to decide on the final amount to be reduced.

Berkeley to Revise Admissions Policies; Asian-American Bias Claims Addressed

BERKELEY, CAL.

A faculty committee at the University of California at Berkeley last week issued a new policy on freshman admissions that is designed in part to deal with claims in recent years of discrimination against Asian Americans.

The policy calls for the elimination of a category of "subjective criteria" for admission, a major change. Asian Americans had charged that the criteria were discriminatory, and the committee itself said they had "eroded public trust in the fairness" of the process.

The recommendations of the Committee on Admissions and Enrollment of the Berkeley Faculty Senate are expected to be implemented in the fall of 1991.

The committee's study grew out of complaints by Asian Americans and criticisms in previous reports, including that of another faculty panel earlier this year that found instances of bias against Asian Americans.

At the heart of the controversy were the "subjective criteria" under which 20 per cent of freshmen were admitted on the basis of, among other things, written essays, English-language proficiency, and completion of foreign-language courses. Asian Americans argued that such criteria favored white students.

The new policy calls for an increase to 50 per cent from the current 40 per cent in the proportion of freshmen selected on the basis of academic records alone. That also is expected to favor Asian Americans as well as whites, who compile higher grades in high school and achieve higher scores on the Scholastic Aptitude Test than other students.

Over all, the new policy "to a large extent responds to many of the criticisms" of Asian Americans, said Henry Der, executive director of the Chinese for Affirmative Action.

New Categories Proposed

The report also calls for a number of new categories for admission, which would give preference to socioeconomically disadvantaged students regardless of their ethnic or racial background, and to older students, a provision expected to favor women. But even in those categories, about half of the students admitted will be selected on the basis of their academic records.

The report said the university would continue to admit some of its minority students in a "special action" category.

The new policy "should now make it possible to attract a student body that is academically stronger than ever before at the same time it extends the process of diversification" in ethnic representation, the report said.

The report said a thorough review of the admissions policy was warranted because of the "ferocious" competition for admission. Last year, about 22,000 students applied to the Berkeley campus, and about 3,500 were accepted, the report said.

—JACK McCURDY

PORTRAIT

President Who Healed Campus Wounds at St. John's Finds His Own Physical Recuperation a Slow Process

[illegible], ANNAPOLIS CAPITAL

William Dyal, Jr.: "I always thought the big word we all feared was 'cancer.' So when they said 'brain tumor' I was shocked and surprised. I wasn't as scared as I was sort of overwhelmed."

By COURTNEY LEATHERMAN

ANNAPOLIS, MD.

At the local Gold's Gym, strangers approach William Dyal, Jr., during his physical-therapy workouts to offer encouragement and tell him how much better he's looking.

Mr. Dyal says he could use the exercise equipment at St. John's College here, where he is president. But he prefers Gold's. "There's something about the anonymity of being out there," he says, "even though there are people at the gym who read the paper and say, 'You look better'—you know, the face—and that kind of thing."

A 12-hour operation last fall to remove a benign tumor from the right side of Mr. Dyal's brain-stem diminished his coordination, limited his mobility, and weakened his facial muscles. He had to learn to eat, walk, write, and talk again.

Seven months later, Mr. Dyal is still recuperating. He has been back on the job since January. He works five-hour days now—he says he runs out of steam easily. He hopes the weight training at Gold's will increase his stamina so he can get back to his usual pace by October.

Administrators at St. John's are patiently and confidently awaiting his full recovery.

College Was in Turmoil

St. John's was in turmoil before Mr. Dyal came on board three years ago, people here say. Internal conflicts had pitted faculty members against administrators, fund-raising efforts were weak, buildings were in disrepair, and the college was alienated from the community.

Administrators say Mr. Dyal has had a tremendous influence on the campus. Jeffrey A. Bishop, vice-president for advancement, credits him with boosting the spirit and the image of the campus by healing internal wounds and reaching out to the community.

Squeezed between the U.S. Naval Academy and Maryland's Capitol, St. John's has long been an enigma to people inside and outside the Annapolis city limits. The college has no intercollegiate athletics, departments, or curricular options. Students study only the "great books"—among them Aeschylus's *Prometheus Bound*, Machiavelli's *The Prince*, and Spinoza's *Theologico-Political Treatise*.

Mr. Dyal's witty and gregarious style, administrators here believe, puts townspeople at ease. But Mr. Dyal admits that some people in Annapolis still think the 400 students at St. John's are "weirdoes" who live "monastic" lives on the college's 30-acre campus. As part of an effort to dispel those myths, Mr. Dyal started a "Great Issues Series" of lectures, which have attracted as many as 500 local residents to participate in discussions on ethics in politics and journalism.

So when administrators did not see Mr. Dyal during his October-to-January absence, they were concerned—about his condition, and the health of the college.

"We rely on a handful of people to get things done," says Mr. Bishop, who helped run St. John's while Mr. Dyal was gone. "The president is critical in that mix. I'm sure if [his absence] had been significantly longer, the college would have suffered."

Mr. Dyal agrees. "There is truth to the story that a college president is someone who sits in a big house and begs."

"And that requires energy," he says. "It requires for you not to look like a freak. My hit-man stuff has been greatly diminished," he says of his fund-raising style.

"If I thought this were going to go on for a long time, a period of years, it would be a real problem."

Mr. Dyal thinks the small size of St. John's and its unique structure made his absence less difficult than it might have been at another institution or at a previous job. He came to St. John's from New York City, where he led A.F.S. International/Intercultural Programs for five years. Formerly the American Field Service, A.F.S. is an exchange program for students and teachers in 70 countries.

Mr. Dyal served as president of Inter-American Foundation for nine years beginning in 1971. He was a Peace Corps official for four years before that. Fluent in Spanish, he remains active in the International Commission on Central American Recovery—a private group aimed at carrying out Costa Rican President Arias's peace plan.

'I Was Sort of Overwhelmed'

Eight years ago, Mr. Dyal began to lose hearing in his right ear. That was before CAT scans had been developed, he says. His tumor went undiagnosed until last summer, when he was plagued with severe headaches, nausea, and dizziness.

"I had always thought the big word we all feared was 'cancer.' So when they said 'brain tumor' to me I was really shocked and surprised. I wasn't as scared as I was sort of overwhelmed."

"It's better that this happened to me here than in New York," he says. The support from the smaller Annapolis community is particularly important now. Although he lived with his wife at their South Carolina home after his surgery, they have had a "commuting marriage" for three years. Edith Dyal teaches at the College of Charleston and is earning a doctorate in education at Columbia University.

There have been times lately when he has missed the anonymity of New York, he says: "When the reporter from the Annapolis paper came in, my first feeling was, Do I really want to go through this?"

But, he says, "I have discovered that people read [that story] and are touched by it—they think of themselves and what happens to them. It's not an impossible situation, as long as you're surrounded by a good community of support and as long as you're willing to give yourself a chance.

"It doesn't have to be the end of everything."

Growth in Corporate Aid to Public Colleges Worries Private Institutions

Continued from Page A1

pleased with the development. To call attention to the issue, two groups of private colleges this month released a study that contends that corporate support favors public colleges over private institutions by a margin of 10 to 1.

A true picture of corporate support of higher education, the study argues, should take into account the portion of the companies' state and local taxes that benefits higher-education institutions. When corporate taxes and corporate gifts are combined, the study shows, public institutions received $11.2-billion in support in 1986-87, compared to $1.1-billion for private institutions.

The study, "The Corporate Investment in Higher Education," was released by the National Institute of Independent Colleges and Universities and the Foundation for Independent Higher Education, a fund-raising group.

The president of the institute, a research organization, says corporations should have a better understanding of where their money goes.

'An Interesting Polemic'

"What we need to examine is the total nature of corporate support of higher education," says the president, Richard F. Rosser, who also serves as president of the National Association of Independent Colleges and Universities, which represents the interests of private colleges and universities. "By looking at both gift and tax-generated support we see that corporations are not supporting public and private colleges on an equal basis."

Although fund raisers at public universities contacted by *The Chronicle* hadn't yet seen the study, some questioned whether it was fair to combine tax support with gifts. Private colleges receive tax support, as well, they say—a fact the study makes clear.

One official at a public university called the study "an interesting polemic," and said it didn't sound like a "legitimate" argument.

Mr. Rosser maintains that the study is not a distortion. "From the corporate viewpoint, where are taxes coming from? Out of profits. Where do corporate contributions come from? Out of profits. They both come from the same pool," he says.

Legitimate or not, the study reflects a growing concern among private colleges about a form of support they have relied upon for years. Although corporate gifts make up only about a fifth of overall giving to higher education, colleges say business gifts are important because they can make the margin of difference in their programs.

Worries Over Fixed Giving

Representatives of private institutions are especially worried about the shift because it comes at a time when overall corporate giving is leveling off. The stock-market crash and the restructuring of the economy mean that corporate philanthropy is becoming a "fixed pie," they say.

The purposes for which corporations give money are changing, too. Concerned about their own bottom lines, businesses are "targeting" their dollars to research or special training programs that can benefit them in some way. And with an eye on the future workforce, they are showing a growing interest in supporting pre-college education.

DOUGLAS GORALSKI, FOR THE CHRONICLE

Richard F. Rosser: "What we need to examine is the total nature of corporate support of higher education."

OHIO STATE U.

Tom Tobin: "Public institutions are convincing corporations that not only do we need their support, we deserve their support."

GENERAL ELECTRIC FOUNDATION

Paul M. Ostergard: "It's strictly a matter of track record. It makes no difference whether it's a public or private institution."

Like many fund raisers at private colleges, William McGoldrick, vice-president for institute relations at Rensselaer Polytechnic Institute, hopes corporations will step up their contributions to all colleges. "But in the sense that the corporate pie is finite, do I worry about the increasing sophistication of public institutions? Absolutely."

Two Fund-Raising Leagues

To be sure, public universities are still not in the same fund-raising league as elite private institutions, which continue to get the lion's share of philanthropy. No public institution has yet attempted to top Stanford University, for instance, with its $1.1-billion capital-campaign goal, or the Johns Hopkins University, with a $600-million campaign goal. But the public institutions' goals, and their development operations, are by no means paltry.

Ohio State University has surpassed its $350-million campaign goal, with another year to go, while Pennsylvania State University is shooting for $300-million. Two recent campaigns—at the University of California at Los Angeles and the University of Minnesota—both raised well over $350-million. Six public institutions were among the top 20 institutions in fund-raising success in 1987-88, according to the annual survey of voluntary support released last month by the C.F.A.E.

Fifteen or 20 years ago, many public institutions didn't even have development staffs to speak of. But now they employ dozens of fund raisers who solicit alumni, foundations, and businesses; operate separate fund-raising foundations; and rely on the same sophisticated research techniques as private colleges.

"The public university is flexing its muscles like never before," says David Gearhart, vice-president for development and university relations at Pennsylvania State University.

All of that amounts to an intense scramble for the philanthropic purse strings, and nowhere is that more apparent than with the nation's corporations.

"As we get more professional, public institutions are convincing corporations that not only do we need their support, we deserve their support," says Tom Tobin, vice-president for communications and development at Ohio State.

In the past, businesses barred gifts to public colleges. "The assumption among corporations was that they were funding publics through their tax base and favored private colleges through their giving," explains Paul M. Ostergard, president of the General Electric Foundation.

Several changes altered that line of thinking. As examples, fund raisers at public universities point to the improved quality of education provided by their institutions, as well as to the swelling numbers of public-college alumni employed by businesses. The fact that public universities are the sites of major research projects is also a factor, they say.

The lines between "public" and "private"—at least in terms of financing—are blurring, as well. For a growing number of public research universities, support from the federal government and private sources is equal to or more than the support they receive from state governments. As a result, some public universities describe themselves as "state assisted," rather than state supported.

In addition, most private institutions depend heavily on the federal aid their students receive, and a growing number also depend on substantial student aid from the state.

Corporations have paid attention to those changes. In 1956-57, they gave four-year public institutions $10.5-million, or 13.8 per cent of their total donations, according to the C.F.A.E. In 1987-88, public colleges received $786-million, or 50.1 per cent of all corporate giving, while private colleges got $783-million, or 49.9 per cent.

"There's a real pressure, and we feel it from public institutions locally," says Rita Bornstein, vice-president for development at the private University of Miami, which has raised $467-million in a capital campaign. Although the university hasn't ever lost out completely because of the competition, "I think we've gotten less," she says.

"There have been a couple of corporations that have given to our campaign, and I'm trying to make the case that they should consider continuing their support after the campaign is over," Ms. Bornstein says. "It's a hard sell. They feel they've *done* the University of Miami. My argument is that we're the major research institute in the Southeast, and we deserve their support on a continuing basis. But I have to keep working on it, frankly."

Distinctions Are Now Irrelevant

Those who give away the money at corporations maintain that the distinction—in their eyes, at least—between public and private institutions is no longer relevant as they consider where to direct their grants.

The General Electric Foundation, for example, is pumping $35-million into new programs designed to help increase the number of women and minority-group members in the ranks of university faculties and to increase the number of inner-city students who attend college.

The foundation doesn't distinguish between public or private colleges, Mr. Ostergard says. 'It's strictly a matter of track record," he says. "It makes no different whether it's a public or private institution."

Likewise, the A.T.&T. Foundation tries to award grants that address special issues or problems, and it doesn't take into consideration the kind of institution receiving support, says Anne Alexander, vice-president of the foundation. A.T.&T.'s foundation gives about $15-million a year for educational purposes, a large portion of which is earmarked for projects in science and engineering.

"Obviously we recognize the distinction between public and private," says Ms. Alexander. "But what drives us first is what we're trying to do. I think people can sometimes lose sight of that.

"What also drives us is a limited budget," she continues. "All sorts of universities are asking for million-dollar-plus gifts. We just can't do it."

Even so, representatives of private colleges don't plan to sit by and watch their share of the corporate pie shrink further. Armed with their own "cases" for corporate giving, private colleges are earnestly trying to drum up more support from businesses.

The study released this month is one attempt to do just that. Copies of the survey will be sent to corporations, foundations, and possibly members of Congress.

The study argues that "it makes good economic, social, and public relations sense" for business to continue its strong commitment to independent higher education. Corporations should consider the following links between the independent sector and business, the study says:

- Independent higher education is a major industry, contributing billions of dollars to local economies and employing millions as faculty and staff members.
- 52 per cent of corporate executives, according to one survey, received their undergraduate degrees from independent colleges.
- Independent colleges provide "a bargain" to taxpayers by relying less on government support than do state colleges and universities.

New Sources of Money

"We can't rely on old ways of fund raising," says Francis J. Mertz, interim president of the Foundation for Independent Higher Education, an umbrella group of state and regional associations that raise money from corporations for private colleges. "If we're going to maintain a diverse system of higher education, something has to be done to increase funds to private higher education, insomuch as we deserve it."

Mr. Mertz and his colleagues do not advocate that corporations shift the bulk of their gifts back to private colleges, to the detriment of public institutions. In the best of all possible worlds, they say, corporations would increase their philanthropic support to all institutions.

But with no sure signs that corporations will do so—and with the U.S. economy still on shaky ground—most fund raisers agree that the competition for business dollars is here to stay. Everyone, no matter where they are, will have to run harder and faster.

Copies of the study are available free from the National Institute of Independent Colleges and Universities, 122 C Street, N.W., Suite 750, Washington 20001; or from the Foundation for Independent Higher Education, Four Landmark Square, Suite 218, Stamford, Conn. 06901.

FACT FILE: Corporate Support of Four-Year Institutions, Selected Years

	Total support		Private institutions			Public institutions		
	All insts.	Amount	Number	Amount	Share of total	Number	Amount	Share of total
1956-57	772	$76,300,000	654	$65,800,000	86.2%	118	$10,500,000	13.8%
1958-59	905	97,300,000	729	75,200,000	77.3	176	22,100,000	22.7
1960-61	915	127,600,000	741	92,400,000	72.4	174	35,200,000	27.6
1962-63	887	145,000,000	716	103,200,000	71.1	171	41,900,000	28.9
1968-69	856	218,400,000	671	156,100,000	71.5	185	62,300,000	28.5
1973-74	880	273,700,000	674	179,700,000	65.7	206	94,000,000	34.3
1978-79	882	436,200,000	668	260,800,000	59.8	214	175,400,000	40.2
1983-84	982	1,052,600,000	707	557,100,000	52.9	275	495,500,000	47.1
1984-85	979	1,307,500,000	709	677,700,000	51.8	270	629,800,000	48.2
1985-86	1,004	1,436,900,000	717	722,700,000	50.3	287	714,200,000	49.7
1986-87	1,008	1,547,700,000	718	832,200,000	53.8	290	715,500,000	46.2
1987-88	992	1,570,200,000	697	783,200,000	49.9	295	786,900,000	50.1

SOURCE: COUNCIL FOR AID TO EDUCATION

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An experiment in the Arizona desert seeks to help scientists understand Earth's ecosystems: Page A4.

The National Research Council has recommended big increases in federal support for work in magnetic-energy fusion: Page A4.

An unusual clearinghouse develops innovative teaching programs in Washington State: Page A11.

An expatriate professor is fighting U. S. efforts to deport her because of her writings: Page A11.

Loan-guarantee agencies warned Congress that students might be unable to borrow money to attend classes next fall: Page A15.

Cornell has devised a way to step up the development and marketing of its research discoveries: Page A29.

As the cost of health insurance continues to soar, many students are choosing to go without it: Page A31.

An anthropology professor decided to investigate a phenomenon close to home—the American student: Page A31.

Mikhail Gorbachev said that education, science, and culture were still among his top priorities in his struggle for *perestroika:* Page A35.

As Argentina plunges deeper into one of its worst crises ever, the lack of money is taking precedence over all other issues: Page A35.

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Student-Loan Rules Will Penalize Colleges With Many Defaults

But they are easier on institutions than Bennett's proposals last year

By ROBIN WILSON

WASHINGTON

Education Secretary Lauro F. Cavazos last week released rules setting up penalties for colleges and trade schools where large numbers of former students have defaulted on Stafford Student Loans.

The rules, which will be much easier on institutions than those proposed last year by then–Education Secretary William J. Bennett, were applauded by members of Congress and college representatives here.

"This is a very positive, constructive approach that allows a great deal more flexibility" than Mr. Bennett's plan, said Charles B. Saunders, Jr., senior vice-president of the American Council on Education.

Rep. Pat Williams, the Montana Democrat who heads the House Postsecondary Education Subcommittee, also praised the rules. "The Secretary has suggested a measured and thoughtful package of default regulations and proposals," he said. "They are not punitive, as were Secretary Bennett's proposed solutions."

Officials of historically black colleges, however, said they thought the rules would hurt their institutions and make it more difficult for some black students to get a college education.

The release of the regulations, some of which will take effect as early as next

Continued on Page A16

Many Colleges Reporting Full Freshman Classes, but Fewer Applicants

By THOMAS H. MOORE

Unexpectedly volatile circumstances have made this admissions season complex for many college admissions officers. But, for the most part, their nightmares of half-filled freshman classes and institutions' shutting their doors have yet to come true.

While applications dropped at many colleges and universities, most admissions people remain optimistic about the size and quality of next fall's freshman classes.

Frank Burtnett, executive director of the National Association of College Admissions Counselors, said he believed that, nationally, students filed fewer applications. "It's the same kids engaged in a little more discrimination. Some kids have seen that sending in 15 applications hasn't paid off for the kids that are in college now.

"We're still trying to get the pulse of the impact of declining numbers of 18-year-olds," he added. "I'm not sure we fully understand what impact that will have."

Katharine H. Hanson, executive direc-

Continued on Page A33

MISCONDUCT IN SCIENCE

Congress's Interest in Ferreting Out Fraud Is Misinformed, Harmful, Say Researchers

By SCOTT JASCHIK

WASHINGTON

Researchers and administrators at research universities are increasingly worried about Congress's interest in scientific misconduct.

Most of the officials say that fraud by researchers is rare and that lawmakers have been misinformed about its extent. But even as they offer those defenses, they say that continuing Congressional hearings and the widespread publicity they have attracted have seriously damaged the political influence of academic research.

If that damage is not repaired, they add, researchers may face increased regulation of federally supported work, a loss of support for federal financing of research, and attempts by Congress to determine the validity of scientific findings.

"The degree of interest in Congress overwhelmed many of us," says David Korn, dean of the School of Medicine at Stanford University. "We simply did not realize the interest in issues we thought were infrequent events."

Albert A. Barber, vice-chancellor for research at the University of California at Los Angeles, says: "Now, no one can ignore the seriousness with which this issue is facing us."

A Congressional aide says: "The reports of misconduct haven't damaged

Continued on Page A25

'GODDESS OF DEMOCRACY' IN BEIJING

Pro-democracy students created the 'Goddess of Democracy,' a sculpture modeled after the Statue of Liberty, in Tiananmen Square last week: Page A35.

MARGINALIA

Driving to work one day last week, we heard a local news announcer cite a story in the "Seattle *Post-Intelligentsia*."

■

This Month, a calendar of coming events at Portland State University, carries the following listing for June 27:

"SLIDE LECTURE: Carl Sagan on 'The Origins of Life in the University & the Search for Extraterrestrial Intelligence.' "

The second is easy to explain; the first, a lot more difficult.

■

From an article in *Adult and Continuing Education Today*:

"Some folks celebrate the end of winter by reading seed catalogs. I read the Iowa Valley Continuing Education catalog to get a feeling of what life is like in the midwest I fled so many years ago. . . .

"My father, whose name I bear, left the little town where he and I were born at the turn of the century."

Twins?

■

Item in a bulletin from the Texas Council of Women School Executives:

"The nomination process is under way for the 1989 Summer Conference Awards. . . .

"Nominations will be accepted until 15, 1989."

Hurry!

■

Job listing in *Panorama*, a career-opportunities bulletin from York College of Pennsylvania:

"MARCHING BANK DIRECTOR / TEACHER–High school, some choral experience helpful."

Something to do with the savings-and-loan crisis, probably.

■

From a "Statement on Plagiarism," published in *Perspectives*, the newsletter of the American Historical Association:

". . . By these measures we declare our commitment to accuracy, responsible judgement, and probity and thereby affirm our disavowal of shoddy endeavors whether born of haste, inadequate research, faculty calculations, or misrepresentation."

Bully!

■

International note (a headline in the Emory University *Wheel*):

STUDENTS RETURN TO POLES
TOMORROW TO ELECT SGA EXECS

■

It has come to this:

A letter from the North Dakota Prevention Resource Center identifies its writer as a "School Prevention Specialist." —C.G.

In Brief

Cal. Ruling Overturned in Agriculture Case

A state appellate court has reversed a lower court's decision requiring the University of California to revise its agricultural research program to provide greater benefits to small farmers, farm workers, and consumers.

In a unanimous ruling, the three-member state Court of Appeal said there was nothing in federal law that would require the university to refocus its research projects to support small-farm enterprises. The 10-year-old case has been closely watched by agricultural and higher-education interests.

Two years ago, Superior Court Judge Raymond L. Marsh ruled that an 1887 federal statute required land-grant institutions to give small farmers "primary consideration" in federally financed research.

The university said Judge Marsh's ruling would have interfered with academic freedom.

California Rural Legal Assistance, the public-interest group that filed the original lawsuit, said it would probably appeal the ruling.

Study Sees Enrollment Rise in Engineering Courses

WASHINGTON

The number of college freshmen enrolled in engineering programs last fall increased for the first time since 1982, according to a study by the Engineering Manpower Commission. Much of the increase was due to the numbers of female and minority students entering the field, the panel noted.

The results of the survey—released last week by the National Action Council for Minorities in Engineering at its annual meeting here—show that overall freshman enrollment in engineering programs last fall increased by 2.7 per cent from 1987.

The number of black students enrolled in engineering programs increased by 15 per cent, to 7,075. Hispanic enrollment increased 11 per cent, to 4,246. The number of women enrolled rose by 5.6 per cent, to 15,837.

Demographics Cited

Officials of the commission, which is supported by the action council to monitor minority participation in engineering, called the increases significant. But they stressed that demographics had had a big impact on the results.

The increases correlate with a modest rise in the number of births 18 years ago, officials noted. Thereafter, birthrates dropped. Hence, the officials said, they predict a decline in engineering students within the next few years.

Officials also credited the efforts of groups like the council with helping to boost minority enrollment in engineering.

—COURTNEY LEATHERMAN

U. of Michigan Is Sued Over Anti-Bias Policy

The American Civil Liberties Union of Michigan has sued the University of Michigan charging that the institution's new anti-discrimination policy is unconstitutional.

The policy, which took effect last fall, sets penalties for students found guilty of committing discriminatory acts, including verbal harassment.

The A.C.L.U. sued on behalf of a graduate student at the university who is studying biopsychology. The student contends that the policy interferes with his First Amendment rights to speak about his research, which has involved the influence of sex, race, and other factors on mental performance.

"The fact is our plaintiff and others say they are afraid to say things in classes and in dormitories," said Paul Denenfeld, legal director of the A.C.L.U. of Michigan. "They do not know what this policy prohibits and what it doesn't."

Walter Harrison, a spokesman for the university, said the policy struck a careful balance between the First Amendment and Michigan's intention to oppose discriminatory acts.

So far, more than 100 complaints have been filed under the policy, most of them regarding sexual harassment, he said.

University Apologizes to American Indians

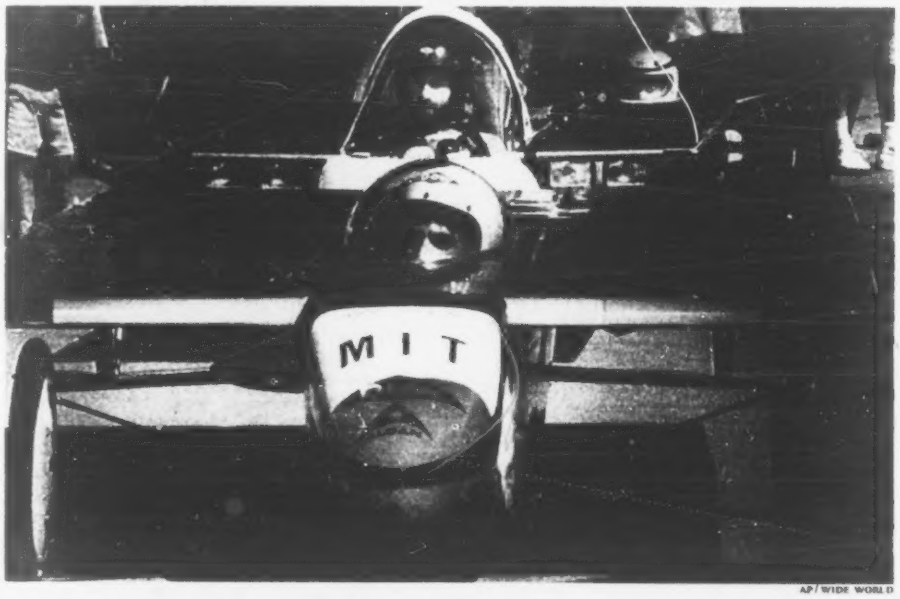
The administration of the California State University at Chico has issued a formal apology to a group of American Indian students who said they had been taunted with "war whoops" and racial slurs during a campus event in April.

The university said it could not determine with certainty who committed the acts. The students had accused members of the university's baseball team and its coach, Dale Metcalf. The students said Mr. Metcalf had apologized.

The incidents occurred in a physical-education building as the students were preparing to stage dances as part of the 11th Annual American Indian Days Pow Wow, a celebration of American Indian heritage held on the university's campus.

Robin Wilson, president of the university, also asked the Faculty Senate to develop plans to combat acts of racism on the campus.

GENTLEMEN, START YOUR PHOTOVOLTAIC CELLS!



AP/WIDE WORLD

CONCORD, N.H.

James D. Worden (*above*) and four other college students and professors spent four days soaking up rays in the first American Tour de Sol solar-car race.

Mr. Worden, a student at the Massachusetts Institute of Technology, won the 208-mile road race in slightly more than six hours. Driving his university's entry—"Solectria 5"—Mr. Worden defeated teams from New Hampshire Technical and Worcester Polytechnic Institutes and Dartmouth College.

The race—sponsored by a non-profit, advocacy group called the Northeast Solar Energy Association—started in Montpelier, Vt., and ended on the M.I.T. campus in Cambridge, Mass. The cars, equipped with panels of photovoltaic cells that convert the sun's rays into electricity, were displayed at local colleges after each leg of the race. Two of the participants drove commuter-style solar cars, which accommodate two passengers. —C.G.L.

U. of Cal. Forms Center on School Reform

The University of California has announced the establishment of the Educational Leadership Institute at its Santa Barbara campus to promote the collaboration of faculty members and school superintendents in the reform of elementary and secondary schools.

The institute, which was developed by the Graduate School of Education on the Santa Barbara campus, will conduct seminars on educational reform and organize projects to improve schools.

The university plans to provide about $295,000 to operate the institute for the first year.

Student Sues Colgate U., Others for $5-Million

A Colgate University student who was allegedly gang-raped at a fraternity party in 1987 has sued the institution, charging that it failed to provide a safe environment on the campus.

The lawsuit seeks $5-million in compensatory damages and an unspecified amount in punitive damages from the university and three other parties—the local chapter of Sigma Chi fraternity, in whose house the rape is alleged to have occurred; the national Sigma Chi organization; and the beer distributor that allegedly sold alcohol to fraternity members for the party, said John C. Setright, a lawyer representing the victim.

As the fraternity's landlord, Colgate is accused in the lawsuit of failing to control the party and prevent under-age drinking. The lawsuit said the fraternity and the

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Foot-notes

The American Association for the Advancement of Science would like people to start thinking science, not cookies, when it comes to Girl Scout activities.

Starting in the fall the association will train Scout leaders in science, mathematics, and computer technology. It hopes the leaders will become more familiar with technical fields and more confident about incorporating science activities into their troops' schedules.

Only recently has the organization added merit badges for activities in science-related areas, such as "science sleuth," "computer fun," "math whiz," and ecology. The additions came in response to the changing role of women in the workplace and to the recognition that girls do not have enough social reinforcement to pursue scientific activities as they start to think about careers.

Because many troop leaders themselves had little exposure to science and technology in school, they did not encourage their Scouts to perform the tasks necessary to acquire badges.

The project, which will begin in Minnesota, North Dakota, and South Dakota, is part of the association's existing program to increase participation in science among women, members of minority groups, and the disabled.

■

The Hubble Space Telescope, whose launch has been delayed since the explosion of the space shuttle *Challenger* more than three years ago, has been delayed again.

The National Aeronautics and Space Administration, which last year postponed the launch of the telescope from June 1989 to December, has postponed it again to the spring of 1990 to make way for military missions of the shuttle.

The delay has not only frustrated the space-science community, but added substantially to the cost of the $1.1-billion space telescope. NASA officials estimate that maintaining the telescope in a dust-free environment on earth is costing the agency $6-million a month.

■

Violence by some animal activists has become a costly problem for research laboratories.

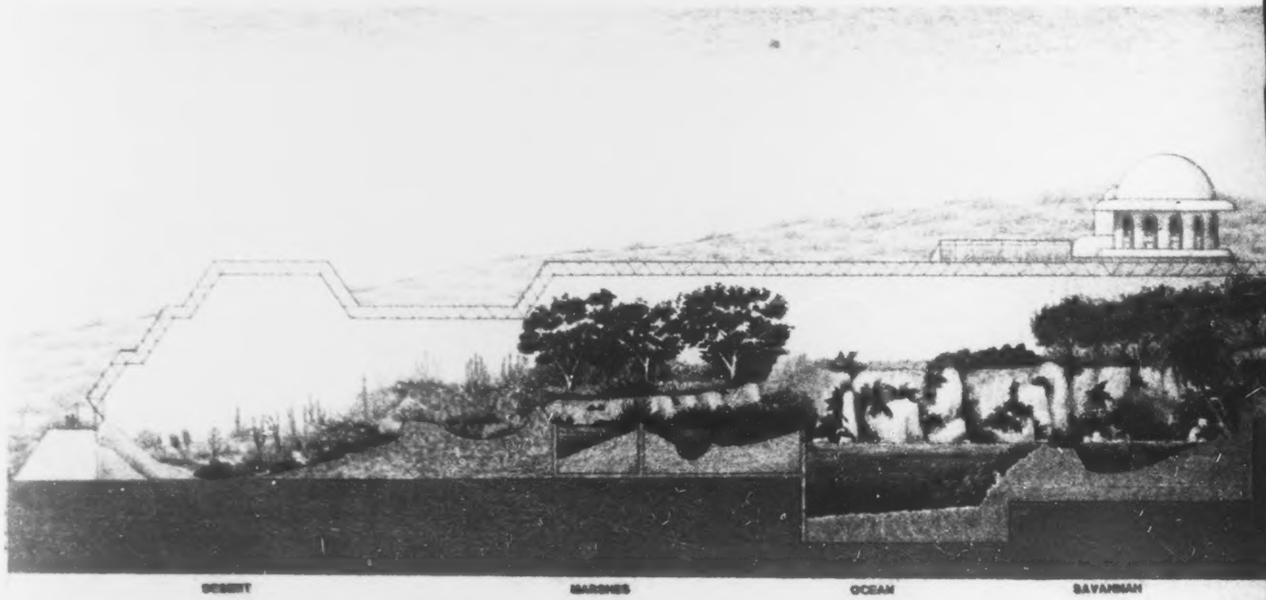
In the past seven years, 29 laboratories in the United States have suffered a total of $7-million in damage, according to an article in the current issue of the *Journal of the National Cancer Institute*, which obtained the figure from the Foundation for Biomedical Research.

The author of the article, Larry Horton, associate vice-president for public affairs at Stanford University, writes that scientists need to get personally involved "in the rough-and-tumble world of public debate and politics" if they want to win the battle over the use of animals in research.

Scholarship

Experiment in Arizona Desert Seeks to Help Scientists Understand Ecosystems, Prepare for Space Colonies

8 people will live for 2 years in a closed environment among 3,800 species of plants and animals



Biosphere II will offer different types of environments, including a tropical rain forest and a patch of ocean, inside its two-and-a-half-acre structure.

By DAVID L. WHEELER

TUCSON, ARIZ.

Science-fiction writers and scientists alike have wondered for decades how settlers on another planet could set up a self-sustaining, earth-like environment.

In an area about 20 miles north of here, where grassland meets cacti-studded desert in view of the Santa Catalina Mountains, some researchers in a two-and-a-half-acre structure resembling a giant terrarium may soon take the first realistic stab at answering that question.

The building, which is now under construction, will enclose a miniature tropical rain forest, a patch of ocean with a wave machine, pieces of savannah, scrub, desert, marsh, and coral reef. It will also contain a 50-foot-high mountain, a farm with fish, African pygmy goats, some Vietnam pot-bellied pigs, and chicken-like creatures called jungle fowl.

The building is scheduled to be completed and stocked with 3,800 species of plants, insects, and animals by September 1990—when eight people will enter the complex to live in the enclosed environment for two years. The participants will be able to contact friends and scientific colleagues by telephone and computer, but will leave only in the event of medical or personal emergencies, such as the death of a relative.

The structure has been named Biosphere II, since the project's creators believe Earth deserves the title Biosphere I. The future inhabitants of Biosphere II, in the New Age nomenclature of the project, have been dubbed Biospherians.

Working out of four stories of living and office space in the complex, the Biospherians will have to raise their own food, study how the flora and fauna interact in the "wilderness," and monitor the water and air inside the sealed environment to make sure they do not poison themselves.

Thirteen volunteers with research and applied-science backgrounds are in training for the eight slots as Biospherians. If five of the candidates do not drop out by the closing date, the final decision about who goes through the Biosphere's airlock next year will be made by the project director.

Backing for 'Biological Spin-Offs'

The Biosphere is being shaped by a group of scientists and architects who are under contract to Space Biospheres Ventures, a company supported by venture capital. The project's financial supporters, the most prominent of whom is Edward Bass, a wealthy Texan, are sinking more than $30-million into the complex in the hope that over its expected 100-year life span they will be able to recoup their investment by selling technology suitable for space colonies and for "biological spin-offs" that are useful on earth as well as in space, such as water- and air-recycling systems.

Scientists working on the project say the knowledge they will gain about how life operates on earth may be as valuable as the knowledge that could be applied to future space missions.

"When people begin to understand Biosphere II they will begin to understand their relationship to Biosphere I," says Carl Hodges, head of the Environmental Research Laboratory at the University of Arizona and one of the chief scientific consultants for the project.

The Environmental Research Laboratory is a collection of greenhouses, fish and shrimp hatcheries, and model homes

Academy Panel Recommends Significant Increases in Support for Magnetic-Fusion Energy Research

By KIM A. McDONALD

WASHINGTON

A panel of the National Research Council has recommended that the federal government increase its financial support for magnetic-fusion energy research by 20 per cent over the next five years to prevent further delays in the development of the potentially valuable new technology.

In a 149-page report, "Pacing the U.S. Magnetic Fusion Program," the panel advocated reversing the trend, begun in the late 1970's, of steadily declining federal support for magnetic-confinement fusion—an effort to generate nuclear-fusion energy by confining hot, electrically charged hydrogen gas within powerful magnets.

Unlike recent efforts to generate energy from room-temperature nuclear fusion, which most researchers now believe is scientifically impossible, conventional methods of fusing atoms require scientists to simulate the conditions found in the sun and stars.

The technical difficulties involved in that feat required billions of dollars from the federal government over the past 30 years and frustrated many members of Congress, who have questioned continued support for fusion research and sought to narrow the focus of magnetic-fusion energy programs.

The panel of the research council, the research arm of the National Academy of Sciences, noted in its report that the steady erosion of federal support—which is now 50 per cent less than the fiscal 1977 level after inflation—had resulted in the coun-

Continued on Page A6

Panel Recommends Large Increases for Magnetic-Fusion Energy Research

Continued from Page A4

try's losing leadership in the field to Europe.

The panel added that the present level of research support was also unrealistic if the Department of Energy is to meet its goal of establishing, by 2010, a scientific and technical base for the construction of a commercial fusion-energy reactor.

Further Increases

To maintain that schedule, it added, Congress must not only increase the department's budget for magnetic-fusion energy by 20 per cent above its fiscal 1988 level of $335-million over the next five years, but provide an additional increase of 25 per cent over the latter half of the 90's.

The panel said such a financial commitment would assure the completion and operation of the Compact Ignition Tokamak, a $400-million fusion device that President Bush has asked Congress to begin building next fall at the Princeton Plasma Physics Laboratory. It would also allow the United States to participate in the international construction of a large-scale, test fusion reactor.

In his fiscal 1989 budget request, Mr. Bush asked Congress for $349.5-million for magnetic-fusion research. While the House and the Senate Appropriations Committees have not yet begun work on their energy-appropriations bills for 1989, the House Subcommittee on Energy Research and Development of the Science, Space, and Technology Committee, which authorizes energy-research appropriations, has approved a level $25-million above that which Mr. Bush's requested.

A staff member for the subcommittee said the increase was specifically designed to accelerate construction of the Compact Ignition Tokamak, a device that would seek to achieve a self-sustaining fusion reaction.

Because future, large-scale experiments are likely to require much larger financial commitments, the research-council panel recommended in its report that "the United States enter into partnership arrangements for the next major steps in an international fusion program," specifically, the engineering test reactor under consideration by a number of countries for construction in the mid- to late-1990's. It also recommended that the Energy Department revise its program to encourage greater participation by American companies.

The panel, which was chaired by Irvin L. White, president of the New York State Energy Research and Development Authority, completed its report before it could consider the implications of reports of room-temperature nuclear fusion—reports that most fusion researchers now believe to be erroneous.

The Energy Research Advisory Board, which provides advice to the Energy Department on its research programs, has created a 22-member panel charged with looking at the status and promise of room-temperature fusion. The committee, which was formed in response to a request from Energy Secretary James D. Watkins, is headed by Norman F. Ramsey, an emeritus professor of physics at Harvard University, and John R. Huizenga, professor of chemistry and physics at the University of Rochester.

That panel is scheduled to deliver a preliminary report on the status of the experimental and theoretical results by July 31. Mr. Huizenga said that if the panel believes room-temperature fusion research merits support, it will issue a final report by November 15 identifying the types of research that need to be pursued.

Magnetic-Fusion Research Funds
(In thousands)

	Fiscal 1988
Princeton Plasma Physics Lab	$85,858
Lawrence Livermore National Lab	42,401
Oak Ridge National Lab	37,643
General Atomics	30,970
Los Alamos National Lab	19,081
Mass. Inst. of Technology	14,929
U. of Cal. Los Angeles	5,490
U. of Texas	5,463
Argonne National Lab	4,305
Sandia National Labs	4,122
Spectra Tech	4,010
U. of Wisconsin	3,692
Pacific Northwest Lab	2,790

SOURCE: U.S. DEPARTMENT OF ENERGY

'Biosphere' Aims to Help Scientists Understand Ecosystems

Continued from Preceding Page

nated with a Soviet scientist, Vladimir Vernadsky, in a 1926 book.

It was extended further by James Lovelock in a 1979 book, *Gaia: A New Look at Life on Earth*, in which Mr. Lovelock postulated that "the Earth's living matter, air, oceans, and land surface form a complex system which can be seen as a single organism and which has the capacity to keep our planet a fit place for life."

Soviet scientists who have tried constructing contained ecosystems in Siberia limited to a few species visited Tucson last month, and described to the Biosphere researchers their attempts at putting humans in sealed systems for up to five months—a period of time long enough to reach Mars.

Although many people have tried to build terrariums for pleasure, few scientists have tried sealing them up and studying them. The late Clair Folsome, a professor of microbiology at the University of Hawaii, demonstrated that glass spheres filled with sand, algae, shrimp, and water could maintain life for decades. In preparation for Biosphere II, Robert Frye, a scientist with the University of Arizona's Environmental Research Laboratory, has been experimenting with small collections of plants and soil in aquariums and five-gallon jugs.

Test Runs in 5-Gallon Jugs

"One of my first questions was, Could I force a system into failure?" said Mr. Frye. "Indeed I could, but it took a lot of work."

From his experiments in the small containers, Mr. Frye was able to predict, with a high degree of accuracy, the proportions of carbon dioxide and oxygen in the air of a 15,000-cubic-foot test module at the Biosphere site. Maintaining the balance between oxygen created by plants and carbon dioxide exhaled by humans will be vital in the Biosphere.

The air will be contained in the Biosphere by sheets of glass held in place with steel frames and a rubbery sealant. Huge external bellows will allow air inside the Biosphere to expand and contract with the temperature extremes of the desert without bursting the glass sky. Computer-operated louvers will provide shade for plants and temperature control.

The scientists working on the Biosphere say similar structures could serve as laboratories where they could test the effect of environmental disturbances such as acid rain or ozone depletion. The Biosphere itself will help determine the impact of the greenhouse effect, since conditions inside the complex will be similar to those many environmental scientists are predicting for the year 2030, with temperatures ranging from 2 to 8 degrees Fahrenheit above today's average temperatures.

The Biosphere will also help environmental scientists devise new technologies for cleaning up pollutants. In the Biosphere's "atmosphere," even ethylene, a hydrocarbon given off by tomatoes, could build up to toxic concentrations, so the air will be filtered through soil filled with microbes able to convert the ethylene into more benign gases. The air and water in the Biosphere will be continuously monitored by computer, but that monitoring will be augmented with samples taken manually and checked individually.

> "We could employ five times as many people as we have and not answer all the questions we'd like to."

To keep tabs on the participants' health, frequent physical examinations will be performed, probably by one of the candidate Biospherians who is a physician. The Biospherians will also be able to consult with physicians at the University of Arizona's medical school, where their medical records will be kept. Although routine medical care can be provided in the Biosphere, an emergency requiring surgery would mean a trip outside.

Keeping the Balance

The scientists at the Environmental Research Laboratory believe they can keep the major gases and soil nutrients in the right balance in the Biosphere. But they worry that elements or minerals that are necessary only in small quantities might, in some unforeseen way, get locked up somewhere so they would not be available for all the organisms that need them.

That puzzle, and many others, cannot be solved before the start of the experiment.

"Realistically we could employ five times as many people as we have and not answer all the questions we'd like to by the time we have to close the doors," says Mr. Frye.

Others working on the experiment say that they cannot avoid ignorance, but they must avoid arrogance.

"There's not an ecologist in the world who can take a cubic meter of soil and know all of the biological interactions going on inside it," says Kathleen Dyhr, a manager of information systems for the Biosphere and a candidate Biospherian. "But we won't perish from our ignorance. We just can't be contemptuous and pretend we are not ignorant."

RESEARCH NOTES

Continued from Preceding Page

Each student rendered a verdict and then evaluated the memory and attention skills of eyewitnesses and the quality of details they provided.

Brad E. Bell, a graduate student, and Elizabeth F. Loftus, a professor of psychology, manipulated the degree of detail contained in the testimony of eyewitnesses for the defense and prosecution. For example, witnesses either noted the presence of several grocery items or listed each one by a specific name.

The researchers also varied the presence of details that were related or unrelated to the actions of the culprit.

In some instances, for example, witnesses recalled either items another customer had dropped before the shooting, or items the defendant carried as he fled the store.

Two related experiments demonstrated that when eyewitness testimony conflicted, the testimony that provided the most detail—even if it was irrelevant to the actual crime—carried more weight in a juror's decision.

The power of what the researchers call "trivial persuasion" was even more pronounced if one of the witnesses could not provide similar detail on direct questioning.

A report of the study appears in the May issue of the *Journal of Personality and Social Psychology*.

—CHRIS RAYMOND

Yale U. Astronomer Revises Estimate of Sun's Age

New estimates of the age of meteorites and planets that were formed during the birth of the sun have forced a revision in the sun's age, which is now estimated to be more than 200 million years younger than previously calculated.

From a more precise radioactive dating of the oldest meteorites, which are believed to have formed 4.53 billion years ago, David B. Guenther, an assistant professor of astronomy at Yale University, calculated that the sun should be 4.49 billion years old. This is more than 200 million years younger than the 4.7 billion years that has been used as a standard by astronomers for the past 20 years.

Mr. Guenther, who published his findings in the April 15 issue of the *Astrophysical Journal*, said his revision of the sun's age, which includes a margin of error of plus or minus 40 million years, took into account theories about the origin of the solar system and the evolution of the sun.

He said that because his new estimate was only a slight variation in the sun's age, it should not require astronomers to revise current stellar evolutionary models, including estimates that the sun has burned about half of its fuel and will begin to die when it is about 10 billion years old.

—KIM A. McDONALD

Superconducting Transistor Developed at U. of Houston

A team of researchers at the University of Houston's Texas Center for Superconductivity has developed a superconducting, microelectronic transistor that is more efficient and uses far less electricity than conventional transistors.

The new device—called a high-temperature superconducting magnetic-field effect transistor—represents one of the first applications of high-temperature superconductivity, a recently discovered property that enables certain types of ceramics, when cooled, to conduct electricity with no energy loss.

It was developed by Wei-Kan Chu, deputy director of the Texas center; Yuan-Jun Zhao, a graduate student at Houston; and Zu-Hua Zhang, a visiting scholar.

The three researchers, who have submitted a paper describing their achievement to *Applied Physics Letters*, say their device should be capable of out-performing transistors now used in microelectronics. It should also, they say, find its way into a variety of applications in communications and computing.

The new transistor, which can be constructed as small as one-millionth of a meter across, consists of a miniature electromagnet that produces very small magnetic fields when bursts of electricity less than one-trillionth of a second long are applied.

The researchers say that because such small amounts of electricity are needed to operate the device, the energy consumption of the transistor is significantly less than that of conventional transistors.

They add that recent tests on a prototype of the transistor—one that is about 500 times as large as that envisioned for commercial use—indicate that the superconducting transistor has "excellent switching and amplification properties" when it is cooled, using liquid nitrogen, to minus 196 degrees centigrade.

—K.A.M.

Breast-Feeding Practices Reflect Views on Women

The breast-feeding practices recommended by religious and medical authorities in colonial America reflect the society's views of women's proper sexual and maternal roles, says a historian at Allegheny College.

In the summer issue of the *Journal of Interdisciplinary History*, the historian, Paula A. Treckel, analyzed pamphlets, books, medical manuals, and other materials, written or circulated in the English colonies of North America in the 17th and 18th centuries, that pertained to reproductive practices. Although it is impossible to know how many people read such documents, she said, they undoubtedly reflected common attitudes of that era.

Ms. Treckel argued, for example, that breast-feeding practices probably contributed to a continuing female conflict between a woman's responsibility to her child and her relationship with her spouse.

Ms. Treckel noted that most manuals written in the 17th and 18th centuries conveyed the belief that sexual activity during the period when a woman was nursing her infant could jeopardize the health of the child. One author even warned that sexual thoughts could "infect the milk," and urged abstinence in thought and action.

To get around that dilemma, wealthy parents often placed a newborn with a wet nurse, who could breast-feed the child for the mother. Evidence suggests, Ms. Treckel said, that in England and in the colonies men were generally responsible for the decision to use a wet nurse, regardless of their wives' willingness to breast-feed.

Yet other documents suggest that women who engaged a wet nurse were censured for putting their own sexual gratification ahead of their children's welfare.

—E.K.C.

Cavazos Unveils Rules to Penalize High Default Rates

Continued from Page A1

month, marked the first time that colleges and trade schools were to be held responsible for the repayments of loans taken out by their former students. The department estimated that the rules would save the government $5.4-billion in default payments over the next 10 years. Student-loan defaults currently cost the department about $1.8-billion annually, and finding ways to reduce that amount has been a growing concern in Washington for more than a year.

The rules will allow the Department of Education, beginning January 1, 1991, to cut off federal loan money to persons attending institutions where more than 60 per cent of the former students have defaulted on their loans. Institutions with default rates of more than 20 per cent and less than 60.1 per cent will be given time to reduce their default rates and be required to take several actions set down by the department. If they don't take such steps, they will risk losing loan money.

If the department determines that an institution has done everything it can to reduce its default rate but the rate still remains high, the institution will not lose aid.

Most Are Trade Schools

The vast majority of the 3,415 institutions with default rates of more than 20 per cent are community colleges and for-profit trade schools. Many of the nation's approximately 100 historically black colleges also have rates that exceed that amount.

Under rules proposed last year by Mr. Bennett, the department would have cut off all federal student aid—not just loan money—to institutions with default rates of 20 per cent or more. Unlike the regulations released last week, Mr. Bennett's rules would not have allowed an institution to continue receiving aid if its default rate remained high.

In announcing the rules, Secretary Cavazos said they were "demanding," but "encourage a positive approach that emphasizes improvement of loan programs."

"As a former university president, I personally know the federal aid programs, the good they do, and the opportunities they offer those least able to pay their own way," he said. "But I also know there are some unscrupulous and uncaring institutions out there who are taking advantage of a program designed to help our students, not financially shackle them."

The Education Department also released a list of the default rate of each college, university, and trade school in the country—7,843 institutions in all. According to the list, 188 institutions have default rates of more than 60 per cent. Most of those are for-profit trade schools.

About 450 institutions have default rates of more than 40 per cent but less than 60.1 per cent, the department said. Beginning January 1, 1991, those institutions must reduce their default rates by 5 percentage points a year—until their rates reach 39 per cent—or risk losing aid. Most of the institutions are trade schools or community colleges. About 30 historically black colleges and universities have rates in this range.

All institutions with default rates of more than 20 per cent but less than 60.1 per cent will be required to adopt "default-management plans" and to take several steps to reduce the likelihood that their students will default. About 3,227 institutions fall into this category.

Job-Placement Programs

The department is expected to work with each of the 3,227 to develop the plans. Department officials did not offer many details on what the plans will include, but said that institutions might be required to expand job-placement programs and to remind borrowers when they must begin repaying loans.

In the past, colleges and trade schools have complained about attempts by the Education Department to penalize them for loan defaults by their former students. They have said that banks are responsible for collecting loans, and that colleges should not be held responsible.

Institutions that educate large numbers of low-income and minority students—community colleges, for-profit trade schools, and black colleges—have said the rules would hurt them the most because studies have found those students are more likely than others to default. The institutions have said that if they are to continue serving such students, their default rates will remain high.

Secretary Cavazos said last week that the department would take the student body into account when it decided whether to eliminate loan money to an institution.

"It's not an absolute cut-off," said Mr. Cavazos.

Department officials did say, however, that if an institution enrolled large numbers of low-income or minority students, that in itself would

Colleges Say U.S. Calculation Method Distorts the Loan-Default Problem

WASHINGTON

Although college officials generally praised the new student-loan-default regulations released by the Education Department last week, many objected to the way the department calculated default rates.

The department released a list of the nation's 7,843 colleges and for-profit trade schools, along with their default rates for 1986. (*The Chronicle* will publish portions of the list in a forthcoming issue.) Analysts of student-aid programs and representatives of colleges said the formula that the department used had generally made the default problems look much worse than if other, more common formulas had been used.

The department looked at how many borrowers who left an institution in 1986 had not started to repay by the end of 1987. The default rate was figured by dividing that number by the total number of students who were supposed to start repaying during that time. For example, according to the department's calculations, if 1,000 students with loan debts graduated from an institution in 1986, and if 300 had failed to begin repaying by the end of 1987, the institution's default rate would be 30 per cent.

Charles E. M. Kolb, Deputy Under Secretary of Education, defended the department's calculations, saying, "We are very confident about the data."

But the department typically has used more long-term calculations for figuring the default rate nationwide, looking at how many students have owed student-loan money since the program began in 1965, versus how many have defaulted on their loans.

The Disadvantaged a Factor

If the department had used that formula in its new regulations, student-aid analysts say, most colleges and schools would have had lower rates, because the calculation takes into consideration people who may default but actually begin repaying a few years later.

College officials also said the formula used by the department would be particularly harsh on institutions that enroll disadvantaged students. "The mechanism for calculating loan defaults will operate to the detriment of any school that has people coming out into low-income jobs when they first start out," said William A. Blakey, a Washington lawyer for the United Negro College Fund and a representative of for-profit trade schools. That, he said, is because those students may default on their loans soon after graduation, but they could begin repaying after they get better jobs a few years later.

Mr. Blakey said the problem was especially acute at historically black colleges and trade schools, whose students are less likely to get higher-paying jobs than people who graduate from other institutions.

Highest Rates at Trade Schools

Indeed, the nation's for-profit trade schools have the highest default rates. According to the department's list, for example, Sawyer School of Business in Michigan has a default rate of 93.8 per cent and Debbie's Alabama Beauty College has a default rate of 77.4 per cent. Some trade schools have low default rates, however, such as Katharine Gibbs School in Boston, with a 2.6 per cent default rate.

Many of the nation's approximately 100 historically black colleges also have high default rates, according to the department's calculation.

For example, Saint Augustine's College has a rate of 55.1 per cent, and Paine College's is 50.3 per cent. Some historically black institutions, however, have lower rates, including Hampton University, at 14 per cent.

College officials also said the formula the department uses in its rules fails to consider that, although an institution's default rate may be high, the amount of money its students owe may be low. Likewise, an institution's default rate may be low, but the amount of money its students have failed to repay may be high.

For example, if 10,000 student borrowers at one institution graduated in 1986 and 1,000 defaulted by the end of 1987, the institution's default rate would be 10 per cent. If 100 students borrowed at a second institution and 50 defaulted, the second institution's default rate would be 50 per cent. Under the department's rules, the second institution would be penalized, but the first would not, even though fewer actual loans—and therefore dollars—would be in default at the second institution than at the first.

—ROBIN WILSON

FACT FILE: Defense Department Contracts to Non-Profit Organizations, Fiscal 1988

Massachusetts Institute of Technology	$403,665,000
Aerospace Corporation	367,000,000
Johns Hopkins University	353,949,000
Mitre Corporation	351,616,000
Charles S. Draper Laboratory	139,592,000
University of California	66,325,000
SRI International	59,125,000
IIT Research Institute	55,557,000
Carnegie Mellon University	50,014,000
Pennsylvania State University	46,816,000
University of Texas	46,008,000
Rand Corporation	44,928,000
Georgia Institute of Technology	41,395,000
Stanford University	33,773,000
University of Southern California	27,819,000
Analytic Services Inc.	27,362,000
Battelle Memorial Institute	24,450,000
Riverside Research Institute	24,434,000
Hudson Institute	23,655,000
University of Washington	20,837,000
University of Illinois	20,697,000
Institute for Defense Analyses	20,657,000
University of Dayton	19,423,000
Utah State University	17,532,000
South Carolina Research Authority	16,161,000
Cornell University	14,004,000
Woods Hole Oceanographic Institution	13,423,000
University of Maryland	13,292,000
Logistics Management Institute	12,297,000
University of Massachusetts	10,389,000
Columbia University	9,958,000
Southwest Research Institute	9,604,000
University of Michigan	9,241,000
California Institute of Technology	9,204,000
Purdue University	8,877,000
George Washington University	8,344,000
ITT Research Institute	8,212,000
Research Triangle Institute	7,693,000
New Mexico State University	7,692,000
Oregon State University	7,637,000
Syracuse University	7,513,000
University of Wisconsin	7,480,000
Southern Research Institute	6,957,000
Yale University	6,858,000
Rensselaer Polytechnic Institute	6,690,000
Environmental Research Institute of Michigan	6,601,000
Brown University	6,470,000
University of Rochester	6,405,000
University of Pennsylvania	6,402,000
Salk Institute for Biological Studies	6,254,000
Texas A&M University	6,075,000
Princeton University	5,948,000
University of New Mexico	5,923,000
Harvard University	5,919,000
University of Alabama	5,858,000
University of Utah	5,852,000
North Carolina State University	5,851,000
University of Arizona	5,697,000
Boston University	5,541,000
State University of New York	5,524,000
National Academy of Sciences	5,279,000
University of Central Florida	4,999,000
Virginia Polytechnic Institute and State University	4,842,000
Mercer University	4,500,000
Colorado State University	4,444,000
University of Minnesota	4,325,000
Auburn University	$4,318,000
Vanderbilt University	4,176,000
University of Florida	4,059,000
University Corp. for Atmospheric Research	3,859,000
Ohio State University	3,786,000
Southeastern Center for Electrical Engineering Education	3,770,000
New York University	3,676,000
University of Colorado	3,508,000
University of North Carolina	3,379,000
Polytechnic University of New York	3,197,000
University of Rhode Island	3,145,000
University of Virginia	3,129,000
Case Western Reserve University	3,035,000
Northwestern University	3,007,000
Clemson University	3,001,000
Duke University	2,951,000
University of Tennessee	2,760,000
University of Iowa	2,649,000
University of Connecticut	2,438,000
Arizona State University	2,447,000
Syracuse Research Corporation	2,337,000
University of Pittsburgh	2,323,000
Rutgers University	2,265,000
University of Chicago	2,239,000
Dartmouth College	2,226,000
Native American Service Association	2,205,000
Michigan Department of Public Health	2,196,000
University of Delaware	2,140,000
Northeastern University	2,122,000
General Hospital Corporation (Mass.)	2,112,000
University of Hawaii	2,044,000
Catholic University of America	1,881,000
Southern Methodist University	1,861,000
American Society for Engineering Education	1,842,000
Louisiana State University	1,837,000
Rice University	1,820,000
University of Cincinnati	1,566,000
National Center for Metalworking Technology	1,500,000
Texas Tech University	1,495,000
Lehigh University	1,456,000
University of Miami	1,450,000
Drexel University	1,438,000
Michigan State University	1,372,000
Mayo Foundation	1,334,000
Fashion Institute of Technology	1,330,000
Emmanuel College	1,317,000
Wright State University	1,269,000
New Mexico Institute of Mining and Technology	1,236,000
University of Lowell	1,212,000
Palisades Institute for Research Services	1,206,000
Temple University	1,192,000
Washington State University	1,170,000
American Red Cross	1,162,000
Michigan Technological University	1,139,000
Boston College	1,128,000
Wentworth Institute of Technology	1,104,000
La Jolla Institute	1,096,000
Southern Illinois University	1,052,000
City University of New York	1,038,000
Wayne State University	1,036,000
Scripps Clinic Research Foundation	1,022,000
University of Wyoming	1,014,000
Miami Valley Research Institute	1,004,000
University of Oklahoma	1,001,000

Note: Includes Department of Defense contracts of greater than $1-million to colleges, universities, and other non-profit organizations. The contracts were for research, development, testing, and evaluation for military projects and for civilian water-resource projects. Other types of funding are not included in this table.

SOURCE: U.S. DEPARTMENT OF DEFENSE

California Higher Education Gets Some Old Advice From a New Source

By CATHERINE BÉDARIDA

PARIS

A group of distinguished educators told leaders of California colleges and universities last week that the Golden State must find more money for higher education and attract more minority students and faculty members.

While the message was hardly new to the state's college officials, it was highly unusual, nonetheless. The advice was in a report prepared by a panel of international scholars appointed by the Organization for Economic Cooperation and Development, a 24-nation group of Western industrialized countries that meets to discuss economic and social policy. The O.E.C.D. periodically conducts studies of the higher-education systems of various countries, and this year, for the first time, examined part of a country.

> "California is a test case of the capacity of an educational plan to unite a prosperous country."

In the state's size and diverse population, said the O.E.C.D. officials in their report, California is more typical of a country than a state. "California may be the crucial, and is certainly a fascinating, test case of the capacity of an educational plan to unite a prosperous country," said the report.

'Legitimate Questions'

It was prepared by A. H. Halsey, a sociologist at Oxford University; Michio Nagai, a senior administrator at the United Nations University in Tokyo; and Pierre Tabatoni, former chancellor of the University of Paris.

The heads of California's three public higher-education systems, as well as top officials from the state's public-school system and its private colleges, traveled here to discuss the report with the O.E.C.D. panel.

The California officials said the report provided new insights into their own system. "It raises very legitimate questions," said David Mertes, chancellor of the California Community Colleges.

Contrasting Experiences

At the same time, they said the outlooks and experiences of California college officials and those of the international scholars were quite different.

David P. Gardner, president of the University of California system, said the study made him realize "how difficult it is to convey the subtleties of our higher-education system to people coming from other countries, whose population, history, and practices are so fundamentally different from our own."

W. Ann Reynolds, chancellor of the California State University System, said: "Other Western countries believe that education systems should be driven by manpower needs. Ours is driven by what parents and students aspire to."

At the same time, however, she said the report as a whole was "very accurate."

The study said the panel was "hugely impressed" by the way California educates so many people. But it said that high dropout rates of black and Hispanic students marred that success. The report suggested that California officials could improve their state's system by devoting more money to elementary and secondary education and by hiring more minority teachers for the public schools.

The O.E.C.D. officials said they thought it would benefit the California colleges to have the outside analysis.

Dorotea Furth, director of higher-education surveys for the O.E.C.D., said: "Californians usually seem very happy; they don't think they can learn anything. But when some of these questions are posed from outside, it is very useful to them."

FACT FILE: 1988 Federal Funds for Student Aid and Research, Selected Programs

	Student aid, in thousands		Research grants, in thousands			
	Pell Grants	Veterans' ed. benefits	Health and Human Services	National Science Foundation	NASA	Endowment for the Humanities
Alabama	$51,740	$23,321	$91,518	$6,434	$7,540	$1,918
Alaska	2,693	2,415	636	7,996	405	638
Arizona	61,381	16,856	37,963	20,421	9,913	1,279
Arkansas	34,498	8,700	6,756	1,307	156	1,256
California	243,731	90,292	815,695	237,722	57,663	10,244
Colorado	54,379	20,271	78,249	113,020	9,935	1,508
Connecticut	27,910	4,613	138,395	18,085	974	2,367
Delaware	26,578	1,401	2,493	6,482	688	933
District of Columbia	19,835	989	63,693	25,294	4,683	5,390
Florida	167,042	42,926	83,074	25,472	4,924	1,241
Georgia	66,558	24,121	66,933	16,073	3,620	1,740
Hawaii	6,071	5,644	9,094	11,861	3,438	893
Idaho	19,375	4,532	1,059	967	600	655
Illinois	173,249	22,512	184,020	88,287	8,497	7,812
Indiana	86,243	13,341	55,255	38,645	2,907	1,877
Iowa	64,501	7,790	60,220	8,718	2,797	971
Kansas	50,266	9,833	18,779	5,445	1,448	635
Kentucky	70,319	11,080	16,546	3,895	435	1,444
Louisiana	115,983	14,809	40,577	5,607	1,424	1,159
Maine	12,098	3,829	11,221	4,221	450	799
Maryland	44,701	10,658	356,514	36,648	13,593	5,200
Massachusetts	59,738	9,857	530,866	143,675	20,168	9,613
Michigan	143,382	19,607	149,397	48,890	6,798	1,659
Minnesota	91,425	14,111	122,585	21,482	1,724	1,487
Mississippi	62,093	7,766	7,490	2,376	1,720	878
Missouri	93,112	16,634	130,508	13,453	2,609	1,193
Montana	19,020	3,454	2,836	2,449	307	677
Nebraska	34,588	7,776	14,852	3,690	503	526
Nevada	11,877	3,916	3,151	2,541	18	393
New Hampshire	5,851	2,863	20,151	5,296	2,597	1,589
New Jersey	64,168	7,720	55,578	40,659	2,865	2,401
New Mexico	26,327	8,488	19,701	6,960	1,862	1,261
New York	393,228	21,268	688,255	182,887	14,232	21,457
North Carolina	67,295	25,864	211,638	31,504	3,649	1,931
North Dakota	20,822	3,741	1,862	1,483	90	493
Ohio	188,488	26,597	148,104	25,572	16,747	1,314
Oklahoma	68,125	16,766	15,419	6,004	712	1,574
Oregon	45,111	10,941	48,923	18,550	1,249	1,210
Pennsylvania	185,254	19,292	365,024	76,210	9,217	6,089
Rhode Island	11,237	2,521	25	15,277	1,965	1,946
South Carolina	47,309	17,294	18,203	6,248	492	872
South Dakota	23,703	3,295	1,106	869	389	429
Tennessee	70,015	15,271	41,931	4,848	1,952	583
Texas	258,262	66,281	266,013	47,384	20,344	2,826
Utah	45,124	6,491	42,860	12,666	1,458	926
Vermont	6,562	860	20,556	2,737	112	926
Virginia	57,948	28,119	88,197	19,898	12,067	4,037
Washington	69,141	29,337	182,275	33,299	4,527	1,859
West Virginia	27,695	3,885	9,548	1,413	211	534
Wisconsin	80,261	12,200	96,807	29,963	5,143	1,688
Wyoming	9,494	2,192	905	3,696	207	631
American Samoa	94	152	—	—	—	—
Guam	1,200	388	99	88	—	—
Northern Marianas	128	1	—	—	—	—
Puerto Rico	214,210	4,342	10,053	10,409	95	547
Virgin Islands	349	30	408	—	—	223
Total	**$3,901,788**	**$759,254**	**$5,528,950**	**$1,505,080**	**$272,119**	**$123,701**

Note: Figures for research include only grants, not contracts. Some of the research grants are awarded to institutions besides colleges and universities.

SOURCE: BUREAU OF THE CENSUS, U.S. DEPARTMENT OF COMMERCE

STATE NOTES

Texas Board Member Quits Over Bill to Expand Colleges

Ignoring veto threats and warnings about creating too many colleges, Texas lawmakers have approved bills converting several two-year universities into four-year institutions.

In one case, a bill prompted the resignation last week of a member of the state's Higher Education Coordinating Board. The member, Sam Carroll, said he was upset that the Legislature had approved the expansion of Central Texas College without consulting the board. The board has traditionally reviewed any expansion proposals before they are carried out.

Three of the proposed expansions are likely to end up on the cutting board of Gov. William P. Clements, Jr. The Governor, a Republican, promised to veto legislation expanding the University of Texas at Dallas, which now offers instruction only to college juniors and seniors, into a four-year institution unless lawmakers took out provisions expanding two other institutions.

Despite that threat, lawmakers included provisions expanding the University of Texas at Permian Basin and Pan American University at Brownsville.

The expansions of the Dallas, Permian Basin, and Pan American campuses all are contingent on the approval of the coordinating board.

—KATHERINE S. MANGAN

Texas Lawmakers Block Bill Requiring AIDS Programs

A bill that would have required all Texas state colleges and universities to develop and distribute AIDS policies to students and employees died in the waning days of the legislative session.

Opponents argued that public colleges and universities were already taking steps to curb the spread of AIDS and that they did not need further regulation from the state. The opponents also said that any information sent to students should stress the illegality of homosexual acts under Texas law.

The defeat provoked an angry response from Rep. Debra Danburg, one of the bill's sponsors. She called her opponents "right-wing Nazis," adding, "How many of our students have to die before some elected officials are able to overcome their homophobic attitudes on AIDS?"

She cited a recent study by the American College Health Association, which she said had found that four in every 1,000 students at the University of Texas at Austin might be infected with the AIDS virus. That is about double the national average for college students.

—K.S.M.

Pressured by Regents, Maryland Chancellor Quits

One year after the reorganization of Maryland higher education that put a strengthened and expanded University of Maryland system under his control, Chancellor John S. Toll announced last week he was resigning.

The resignation, rumored for the last year, came amid a new spate of news reports suggesting that the Board of Regents, and particularly its chairman, Peter F. O'Malley, had been seeking his ouster.

Mr. Toll had been chancellor since 1978 and helped to shepherd through the reorganization last year that merged several state colleges and universities into an 11-campus University of Maryland system. "This is a good time to seek a replacement for someone who will lead the university system through the next decade," said Mr. Toll, adding that at age 65, it was "reasonable" to retire from an executive position.

Regarded as an able administrator, Mr. Toll has an aggressive style that reportedly displeased several of the new members of the Board of Regents as well as campus presidents. Mr. O'Malley said that for two months a committee of the Board of Regents had been privately discussing the need to replace Mr. Toll with a chancellor whose management skills better suited the more complex university.

Mr. Toll, who last month proposed a new economic and social role for the University of Maryland, said he did not expect his resignation to affect the proposal.

The plan calls for the university to become more involved in promoting economic development and addressing social and economic problems in Baltimore.

Some regents and college presidents had expressed reservations about whether it would have the university paying more attention to social goals than to the basics of a college education.

—GOLDIE BLUMENSTYK

N.Y. Board Toughens Rules for Prospective Teachers

After many years of debate, the New York State Board of Regents last month adopted tough new requirements for prospective elementary- and secondary-school teachers.

Under the new regulations, prospective teachers will have to pass a general-knowledge exam, serve a one-year internship, take at least one year of a foreign language, and focus their college educations on liberal arts before they can be certified.

The general-knowledge exam will test candidates in history, math, science, and social studies, and will be taken in addition to a general test on teaching methods and a test in the teacher's specialty area.

The new regulations are designed to produce teachers who have both "breadth and depth" of preparation, said Donald Nolan, the state's deputy education commissioner. The new regulations will not go into effect until 1993 so colleges will have time to revamp their programs, he added.

—CHRISTOPHER MYERS

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News Summary

Articles on inside pages

Research on pornography is out of the closet and gaining importance as a scholarly field: Page A4.

Anthropologists are calling on AIDS researchers to examine the cultural contexts of the human actions that spread the disease: Page A5.

Three more institutions are expected to be censured by the American Association of University Professors: Page A13.

A program that stresses academic excellence rather than remediation is changing the way science and mathematics are taught to minority-group students: Page A13.

Skepticism is growing about the Education Department's plans to reduce default rates on student loans: Page A18.

A tax policy that university officials said was keeping some foreign students from studying in this country has been reversed: Page A18.

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Education, alone among recipients of charity, recorded a drop in donations last year: Page A29.

Colleges are caught in a battle over who sets financial rules for higher education: Page A29.

A student leader at South Africa's Stellenbosch University was expelled following calls for integration of the dormitories: Page A33.

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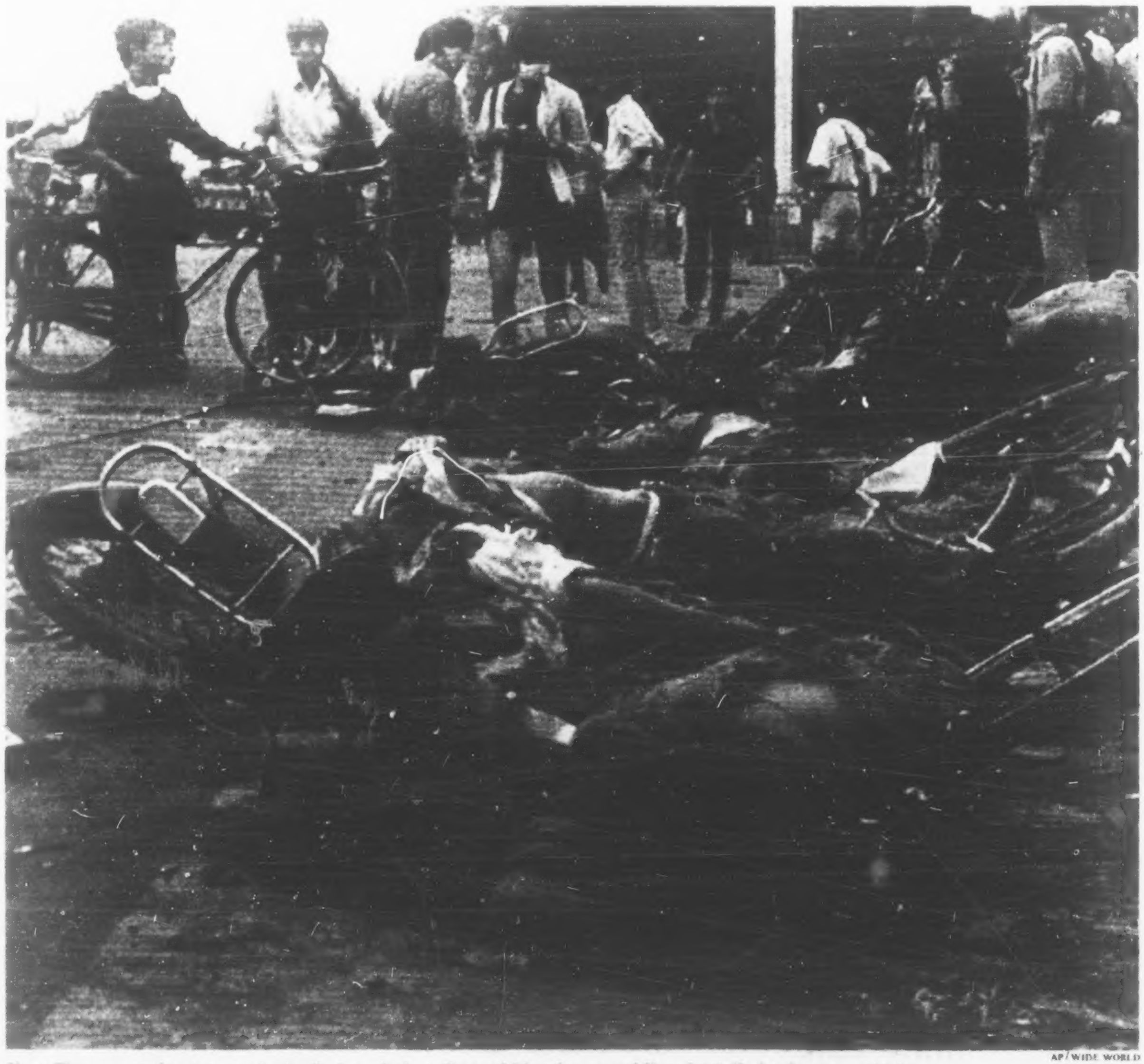
Defiance and Death in Beijing

After suppression of protesters, Chinese officials demand that student leaders turn themselves in or face punishment



AP/WIDE WORLD

Near Tiananmen Square, students died on their collapsed bicycles as soldiers brutally broke up protests.

Chinese authorities set up military checkpoints around Beijing's university district late last week, backing up earlier demands that leaders of the pro-democracy student movement in Beijing end their boycott of classes and turn themselves in—or face severe punishment.

As truckloads of soldiers rolled past Beijing University, loudspeakers announced a nighttime curfew in the district. The actions seemed to signal the start of a renewed crackdown on student activists.

The actions came at the end of a week in which student-led demonstrations erupted in cities across China in reaction to the government's bloody suppression of protesters at Beijing's Tiananmen Square.

In the capital, students donned black armbands and draped their campuses in black and white bunting to mourn hundreds of classmates who had been gunned down by soldiers and crushed by tanks.

Last week's ultimatum to student leaders came in decrees issued by the martial-law command and the State Education Commission. The orders appeared to indicate that conservatives in the Communist Party hierarchy were consolidating their control over the government after weeks of paralysis induced by the students' five-week takeover of the square.

The decrees were accompanied by a call for a purge of Communist Party members who had taken part in the pro-democracy movement. At the same time, reports circulated that police officers had begun arresting leaders and supporters of the movement, including Liu Xiaobo, a doctoral candidate at Beijing Normal University. Other student leaders were said to have gone into hiding.

The government declared that citizens had a "duty and obligation" to report known "bandits" to the authorities.

A climate of fear gripped the capital's intellectual community. Fang Lizhi, an as-

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Inside: China in Crisis

- At Beijing University, the bloody crackdown by the government stuns students and faculty members: A34.
- Enraged Chinese students in the United States and abroad decry the slaughter; many will seek visa extensions: A36.
- U.S. colleges and scholarly groups condemn the massacre and hurry to get students and professors out of China: A38.

MARGINALIA

From an English professor's article in *Academe*:

". . . We live—and sometimes die—by our language. Although it is supposed to *represent* what is 'real,' language in actuality *shapes* our perception of reality itself. . . .

"Effective college and university presidents will maintain in their language as well as in their minds the crucial difference between themselves and the non-academics (some of them real CEOs) who make up their boards of trustees and alumni associations. Whomever's pleasure they are supposed to serve, college and university presidents actually serve a constituency made up of their subordinates—staff, students, and faculty—and, when their actions no longer serve a significant part of that constituency, they become unnecessary."

Whomever's language are we living and dying by *today*?

■

Some weeks back, a reader presented us with this idea: If academic departments were radio stations, what would be their call letters?

Other readers have followed up with suggestions, some of which we have published in this space. Here's a new list, from Don S. Blank, a regent of the University of Nebraska:

Genetics: KLON
Self-improvement: KNDO
Home economics: KOOK
Eastern religions: KRMA
Phys ed (boxing): KAYO
Auto repair: KRFX

■

Memorandum from an assistant dean of the College of Human Development and Performance at the University of Oregon:

"During a recent Facilities and Safety Committee meeting, it was suggested that in addition to the regular activity facility improvements and College safety, that the Committee should concern itself with improving the classroom teaching areas.

"It was also decided that perhaps the best way to determine classroom environmental needs was to pole the faculty. . . ."

With the lances humanely padded, we hope.

■

Faculty note in *The College Voice*, the student newspaper at Connecticut College:

"John Coats, assistant professor of government, has published a collection of ten essays as a book, *The Activity of Politics and Related Essays*, through Associated University Presses. Coats has also completed a monolith entitled "American Democracy and the Punitive Use of Force" for the U.S. Institute of Peace in Washington D.C."

Yet *another* monument for the nation's capital? —C.G.

In Brief

Archbishop Tutu Elected to Harvard Board

South African Archbishop Desmond M. Tutu was elected last week to the Harvard Board of Overseers, one of the university's two governing bodies.

The Archbishop, winner of the 1984 Nobel Peace Prize and holder of an honorary Harvard degree, was one of five candidates sponsored by an alumni organization dedicated to the divestiture of some $160-million of university-owned stock in companies that do business in South Africa.

The other 10 candidates for the five openings on the board were nominated by the Harvard Alumni Association. University officials had urged alumni not to vote for "single-issue candidates."

Archbishop Tutu who has threatened to return honorary degrees granted him by U.S. institutions that do not divest, was the only candidate backed by the anti-apartheid group to win a seat on the board.

U. of Missouri Honors Black Woman It Once Rejected

COLUMBIA, MO.

Fifty years after Lucile H. Bluford was refused admission to the University of Missouri at Columbia because she was black, the institution has awarded her an honorary doctorate of humanities.

Ms. Bluford is editor and publisher of *The Call*, a black newspaper in Kansas City.

When she applied to the university's graduate school of journalism in 1939, Ms. Bluford was initially accepted. "But when I showed up to enroll, they found out I was black," she recalled in an interview. State law at the time required blacks and whites to attend "separate, but equal" institutions.

Under the law, if a black wanted to pursue a degree that was not offered at one of the colleges for blacks, a program would have to be created or the state would pay the tuition and fees for the student to attend college in another state. Ms. Bluford's rejection by Missouri consequently led to the development of the journalism program at Missouri's Lincoln University.

The doctorate was awarded to Ms. Bluford during the University of Missouri commencement last month. —DENISE K. MAGNER

U. OF MISSOURI AT COLUMBIA

Publisher Lucile Bluford gets U. of Missouri honorary degree.

Washington U. to Close Dental School by 1992

Washington University in St. Louis will close its dental school by 1992, becoming the fifth university to close a dental school since 1985.

The university's trustees decided to close the school because of declining enrollments and budget deficits. The decision came in the wake of an internal report describing the dental school's financial problems.

Third- and fourth-year students will be able to complete their degrees, university officials said. The dental school will help first- and second-year students find other schools.

The school has 37 full-time faculty members. Its 17 tenured faculty members will be able to transfer to other departments, while the 20 others will be reviewed individually.

The dental school has one of the highest tuition rates in the country—$19,000—and was expected to post a $450,000 deficit in 1989-90.

Maritime Academy Head Says He Won't Quit

The president of Massachusetts Maritime Academy, who has been asked to resign by the institution's faculty union and the chairman of the state's Board of Regents of Higher Education, said last week he will not step down.

John F. Aylmer, who holds the rank of rear admiral in the U.S. Maritime Service, was asked to resign last month in a letter signed by 47 of the academy's 55 faculty members. All 55 belong to the union. The faculty was joined in its call for Admiral Aylmer's resignation by Paul E. Tsongas, chairman of the regents.

In a memo to the faculty, Admiral Aylmer said he would not "honor such a request."

The admiral, a former state senator, was criticized by the faculty for a number of actions that embarrassed the institution, said Gerald F. Concannon, head of the faculty union. Those actions included taking relatives and friends on a Caribbean cruise aboard an academy-owned training ship and his use of trust funds for travel, said Mr. Concannon.

The academy's trustees met this month to hear the faculty's concerns and Admiral Aylmer's response. The trustees said they would meet again "as soon as possible." The regents are to meet this week to discuss the academy.

Student With Dyslexia Sues Over Exam Rules

A student with dyslexia has sued the University of California at Berkeley, charging that the refusal of a professor to allow him extra time to complete a mathematics test violated federal law.

The suit was filed in a U.S. District Court in San Francisco by Campbell A. Dinsmore, a junior. In the suit, he claimed that students with documented learning disabilities, such as dyslexia, are entitled to special accommodation by provisions of federal law.

The suit said Mr. Dinsmore had failed the class taught by Charles Pugh, a professor of mathematics. Mr. Pugh and the university declined to comment on the suit.

Hispanic Coalition Asks U. of California President to Resign

SACRAMENTO, CAL.

A group of Hispanic organizations in California has called for the resignation of David P. Gardner, president of the University of California, over what it charged was the failure of the university to recruit more Hispanic administrators, professors, and students.

The Hispanic Coalition on Higher Education—which represents 83 Hispanic student, educational, and civil-rights organizations—also demanded a freeze on salaries exceeding $100,000 of university administrators who "participated in the benign neglect" of Hispanics.

In addition, the coalition requested the development of specific and enforceable affirmative-action goals that would "insure parity for the Hispanic community at the student, policymaking, and faculty levels" in the 1990's.

The coalition was joined at a press conference here by the Chicano / Latino Consortium—representing about 250 Hispanic students, faculty members, and administrators from the University of California—which also said it had sent a letter of no confidence in Mr. Gardner's leadership to the university's Board of Regents.

'The Same or Worse'

"With few exceptions, the university's record is the same or worse today" compared to 14 years ago, when the first report of the Task Force of Chicanos was released, the coalition charged. Mr. Gardner, then a university vice-president, was a co-author of the report.

"As a combined result of [Mr.] Gardner's lack of leadership and his unwillingness to promote Hispanics to key policymaking positions, virtually none of the department heads and only 3 per cent of the faculty are Hispanic," the group said.

A spokesman for the university said Mr. Gardner had no intention of resigning, insisting the university had made "slow but steady progress" in addressing Hispanic concerns and has a "firm commitment to improve their numbers."

A press release had claimed support for the coalition's demands by "the top three Hispanic policymakers at U.C." The three were identified by a coalition spokesman as Ed Apodaca, director of admissions and outreach services; Eugene Cota-Robles, assistant vice-president for affirmative-action programs; and Roberto Haro, assistant chancellor of the Berkeley campus.

But in interviews, the three disavowed reports of their support for the coalition's demands. Only Mr. Haro said he supported the consortium's letter of no confidence in Mr. Gardner. However, all three officials said they firmly supported the need to increase the number of Hispanic administrators, faculty members, and students. —JACK McCURDY

Ex-Head of Portland State Named to New Presidency

Natale A. Sicuro, who resigned as president of Portland State University amid stormy relations with faculty members and controversy over his handling of university fund raising, has been named president of Roger Williams College.

"We're very happy to have him," said Ralph R. Papitto, chairman of the college's governing board. He said the college's search committee had made its own investigation of events at Portland State and was satisfied with Mr. Sicuro's appointment. A statement released by the college said Mr. Sicuro was noted for his success in fund raising and governmental relations and his commitment to affirmative action.

The 3,000-student college is about to embark on its first capital campaign, with a $4-million goal.

Last year, two state investiga-

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Ways & Means

Rumors circulated in Washington last week that President Bush would soon nominate two former administrators of black colleges to top positions in the Education Department.

Although the reports came from within the Administration and from others familiar with the search, senior Education Department officials strongly denied them.

According to the reports, Leonard H. O. Spearman, U.S. Ambassador to Rwanda and the former president of Texas Southern University, would be named Assistant Secretary for postsecondary education. They also said that Leonard L. Haynes, III, assistant superintendent for academic programs at the Louisiana Department of Education and former executive vice-president of the Southern University System, would be named Assistant Secretary for civil rights.

Several sources also said that, in the search for the postsecondary education position, the Education Department had recently been considering only those affiliated with black colleges.

Mr. Spearman could not be reached for comment last week, and Mr. Haynes declined to comment on the reports.

A White House personnel official also declined to comment.

Bill R. Phillips, chief of staff at the Education Department, denied that the two men would be nominated to department posts, saying through an aide that speculation about the nominations was "wrong."

■

President Bush last week said he would establish an advisory committee on education "to bring me innovative ideas."

Mr. Bush made the announcement at a meeting of business leaders in Washington, whom he urged to "get personally involved" with the schools and "walk into the classroom, not as a C.E.O. but as a concerned parent, as a good citizen."

Mr. Bush said he wanted to establish the advisory committee because "our schools are in trouble." He said he was concerned about the high-school dropout rate and about the lack of good educational opportunities for disadvantaged children.

The advisory committee is expected to focus primarily on elementary and secondary schools rather than on the country's higher-education system, which Mr. Bush last week called "the strongest and most successful system in the world."

A White House spokeswoman estimated that between 12 and 20 people would sit on the advisory committee, but she was unsure when President Bush would appoint them.

She said that the committee's members would include educators, business leaders, and state and local government officials.

Government & Politics

College and Trade-School Officials Raise Questions About U.S. Plan to Reduce Loan-Default Rates

Method of calculating defaulters assailed; Education Dept. ability to crack down on abusers doubted

Institutions With Default Rates Above 75 Per Cent

	Per cent in default	Number of borrowers
Sawyer School of Business (Mich.)	93.8%	81
Kalamazoo Beauty Academy (Mich.)	89.5	57
Cambridge Business College (Mich.)	86.0	285
Payne-Pulliam School of Trade and Commerce (Mich.)	85.5	62
Chicago School of Automatic Transmission (Ill.)	84.7	209
Odessa's College of Beauty (Ind.)	83.8	74
Maryland Institute of Technology (Md.)	83.3	288
Midsouth School of Beauty (Tenn.)	82.9	170
Jerome's School of Beauty Culture (La.)	82.2	45
Americo Technical Careers Institute (La.)	81.8	483
Waco Beauty College (Tex.)	80.0	50
Kalix Trade School (Pa.)	79.6	152
Ross Medical Education Center (Mich.)	79.1	115
Delaware County Institute of Training (Pa.)	78.8	283
Tarkio College (Mo.)	78.7	1,154
International Broadcasting School (Ohio)	78.6	42
Meadows Draughon College (La.)	78.5	107
Empire Career Center (N.Y.)	78.1	301
Delta Career College (La.)	77.8	827
MSTA Business College (Ill.)	77.8	81
Debbie's Alabama Beauty College (Ala.)	77.4	164
Dickinson Business (D.C.)	77.0	87
Health Care Training Institute (Tenn.)	77.0	1,817
South Mountain Community College (Ariz.)	76.7	540
American Business Institute (N.J.)	76.6	834
Wilfred Academy (Pa.)	76.6	649
Paul's Beauty College (Okla.)	76.5	51
Florida College of Business (Fla.)	76.2	783
Moler Beauty College (La.)	76.2	105
Niagara Hairstyling and Beauty Culture (N.Y.)	76.1	67
Lewis College of Business (Mich.)	75.8	132
Delaware Valley School of Trades (Pa.)	75.5	603

SOURCE: U.S. DEPARTMENT OF EDUCATION

By **ROBIN WILSON**

WASHINGTON

Skepticism grew last week about the Education Department's new plans to reduce default rates on student loans.

College and trade-school officials, in many cases supported by state loan agencies, disputed the Education Department's calculation of their student-loan default rates and said they were worried that publicity about the rates would drive students away from their institutions.

Others acknowledged that their default rates were high, but said they could do little to get students to repay.

Some higher-education lobbyists said it would be nearly impossible for the department to crack down on all the institutions covered by its regulations.

Stephani Crenshaw, an instructor at Waco Beauty College, which the Education Department says has an 80-per-cent default rate, the highest of any institution in Texas and the 11th highest rate in the country, said: "It is embarrassing and it makes us sound bad. But it's not like we have done anything wrong. It's the students who haven't paid."

State-by-State Listing

Ms. Crenshaw and state loan-agency officials in Texas said they believed Waco Beauty College's default rate was actually only 42.7 per cent.

The controversy over default rates was prompted this month by the Education Department's release of regulations that will strip federal loan money from students attending colleges and trade schools where large numbers of former students have defaulted on their Stafford Student Loans (*The Chronicle*, June 7).

Along with the regulations, the department published a state-by-state listing of 7,843 institutions and their default rates for 1986. (A list of the rates at more than 2,600 colleges and universities begins on Page A23.)

Most of the institutions with the highest rates are historically black colleges, community colleges, and for-profit trade schools. Those institutions enroll large numbers of minority and low-income students who, studies show, are more likely than other persons to default.

Agencies Use Different Calculations

To calculate an institution's default rate, the Education Department looked at the percentage of borrowers who left the institution in 1986 who had not started to repay by the end of 1987.

State loan-guarantee agencies use calculations that take many more years into account and, therefore, typically make institutions' default rates appear much lower. The rates are lower because students may default initially but then begin repaying a few years later. Such students would not be counted as in repayment under the department's plan.

"We don't think the rates are being calculated properly," said H. Jack Nelson,

Continued on Page A22

IRS Reverses Policy That Required Some Students From Foreign Countries to Pay U.S. Income Taxes

By **SCOTT JASCHIK**

WASHINGTON

The Internal Revenue Service has reversed a policy that university officials said was unfairly requiring some foreign students to pay U.S. income taxes and discouraging other foreign students from studying in this country.

The old policy required that foreign students receiving support from their own governments or private groups from outside the United States be subject to taxation here because this is where their education takes place. Under the new policy, the foreign students will be subject to American taxation only on funds they receive from American sources.

"This goes a long way to solving some of the most severe problems our foreign students have been facing," said Norman Peterson, executive secretary of the Liaison Group for International Educational Exchange.

Said José Trías, a Washington tax lawyer: "This is very welcome. The old policy was leading some foreign countries and organizations to send their students to Heidelberg and Oxford instead of Harvard."

The number of students who would be subject to taxation varies from year to year. But in the 1986-87 academic year, about 45,000 of the 349,000 foreign students studying in the United States received assistance from groups in other countries, according to the Institute of International Education.

Mr. Peterson said that even though the proportion of foreign students subject to taxation was small, the issue is extremely important. Those who receive government or private support from their home countries are generally among the most talented foreign students who come to the United States, because competition for the funds is usually very intense.

Policy in Place Since 1966

The policy that the I.R.S. reversed has been in place since 1966. However, until the tax-reform legislation of 1986, most of the scholarship and fellowship funds that foreign students received were protected from taxation by other provisions in the tax code. When those provisions were repealed as part of the tax overhaul, foreign students found themselves subject to levies they did not even know about.

Since that time, higher-education groups have been working to change the law. Sen.

Continued on Page A22

WASHINGTON UPDATE

Bush Rejects Request by Hispanics; Junior-High-School Plan Proposed

The White House has turned back the requests of a national Hispanic group that the President call on government agencies to increase participation by Hispanic people and institutions in federal education programs.

"There will not be any such order," said an aide in the White House Office of Policy Development. The aide said that President Bush "has a very strong commitment to the education of Hispanics" but does not believe a separate executive order is necessary at this time. The aide said White House officials will continue to talk with Hispanic groups about improving educational opportunities for Hispanics.

The National Council of La Raza asked President Bush to consider signing an executive order that would encourage federal agencies to give special consideration to colleges with large numbers of Hispanic students when the agencies allocate federal grants and contracts. The group also wants more Hispanics to be members of review boards that decide how some federal money is spent.

President Bush signed an order earlier this year directing federal agencies to send more money to historically black colleges and universities. Similar executive orders signed by past Presidents have been praised by black-college officials, and presidents of institutions with large numbers of Hispanic students have said in recent years that they, too, should be covered by such a measure.

The White House aide, who asked to remain anonymous, said that unlike the situation for historically black institutions, "there is no legal precedent for expanding money to Hispanic colleges." The aide also said it would be difficult to establish a definition of which institutions qualified as "Hispanic."

Denise De La Rosa, education policy analyst for the national council, said her group would continue to try to interest the White House. "We realize that Hispanic higher-education institutions are different from historically black colleges. They don't have the same kind of history," she said. "But there are institutions where a high number of Hispanics attend that need assistance."

■

Education Secretary Cavazos has proposed including junior-high-school students in a federal program that now encourages disadvantaged high-school students to graduate and attend college.

Secretary Cavazos said it was necessary to reach down into the lower grades because, once they enter high school, it sometimes is too late to capture students' attention.

"We see students making the decision to drop out as early as the seventh and eighth grades," the Secretary said. "We must reach them early and motivate them with hope, encouragement, and information on opportunities."

Since he took office last September, Secretary Cavazos has spoken frequently about his interest in curbing the high-school dropout rate.

Currently colleges and non-profit agencies operate 178 "Talent Search" programs across the country for high-school students. The federal government spends $26.2-million on the programs, which provide academic and financial-aid counseling to high-school students.

Under the Secretary's proposal, $2.9-million more would be spent at 55 of the 178 present program sites to include seventh and eighth graders. The plan does not have to be approved by Congress because it would use money left over from previous years. Grants are expected to be awarded in September.

—ROBIN WILSON

Colleges Skeptical of Education Dept. on Defaults

Continued from Page A18

acting interim executive director of the Michigan Higher Education Student Loan Authority.

Charles E. M. Kolb, Deputy Under Secretary of Education, last week defended the method the Education Department used to calculate the default rates. But he said that if an institution disputed the calculation, "we will certainly work with the school to review the data" before any penalties are levied.

Meanwhile, some college representatives in Washington are concerned that the Education Department does not have enough employees to enforce its regulations.

Beginning in a few months, the department is slated to devise "individual default-management plans" for 3,227 colleges and trade schools where between 20.1 per cent and 60 per cent of former students have defaulted. Then, in January 1991, the department is to begin the time-consuming process of attempting to cut off loan money to 188 institutions whose default rates are more than 60 per cent. An institution has several chances to defend itself against such a penalty, and it can take several months for the department to stop the flow of money.

Mr. Kolb said he did not believe the job would be too big.

"I don't have any doubts about being able to deal with that number of institutions," he said. He said that even though the department was to establish "individual" management plans with institutions, "some approaches are going to be workable for a number of institutions" and that will save the department time.

One education lobbyist, however, said the department had set its sights too high.

"I don't think anybody really thinks they can do all of this," said the lobbyist, who asked not to be identified. She said it would be nearly impossible for the department to monitor whether institutions actually had taken the series of steps the agency had specified for reducing defaults. "If you run a red light and the police don't catch you, so you've run a red light," the lobbyist added. "There will be a lot of red-light running under these."

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Joe Belliotti, Jr.:
"We are hoping to get a retraction from the Secretary as soon as possible."

The major outcry in the wake of the department's announcement came from college and trade-school officials who were shocked when they learned of the default rates that the Education Department had assigned to their institutions.

Joe Belliotti, Jr., vice-president and director of the Sawyer School of Business in Michigan, said he had been deluged with phone calls from reporters and officials of other proprietary schools after the department's listing showed his institution had a 93.8-per-cent default rate—the highest of any institution in the country.

Mr. Belliotti, whose school teaches secretarial and computer skills, said his rate was actually only 34.8 per cent. Officials at the Michigan guarantee agency who keep track of loan repayments at the institution agreed.

Mr. Belliotti said an Education Department employee who visited his institution last year to review the school's student-loan files gave the institution a good report. "We are hoping to get a retraction from the Secretary as soon as possible," said Mr. Belliotti.

Sister Paula Howard, academic dean at Donnelly College, said the Education Department's student-loan default list—which showed that Donnelly, a private two-year college in Kansas City, Kan., had a 70.2-per-cent default rate—had created a ruckus at the institution.

"Some of our alumni are upset about the publicity," said Sister Paula. "They think the college itself owes the government money."

Sister Paula said it was unfair for the government to hold institutions responsible for loan defaults. Institutions must certify a loan for any student who meetsthe financial qualifications, regardless of whether administrators believe the student is likely to repay.

Sister Paula said many of the students who attend Donnelly have difficulty repaying when they leave.

"We're in the inner-city area," she said. "Many of our students are low-income heads of families, and they enter the job market at a low income level. It's very difficult for them to make payments."

Some Are Not Surprised

Not all institutions were disturbed or surprised by the department's default calculations.

Michael J. McCarthy, president of Saint Mary of the Plains College, said his institution was already working to lower its default rate, which the department said was about 50 per cent. Mr. McCarthy, who agrees with the department's calculation, said the rate zoomed when the private, four-year liberal-arts institution entered into a "management contract" four years ago to teach a correspondence course in truck driving.

"We were approached and looked at it and thought it would be effective because it was helping poor people," Mr. McCarthy said of the truck-driving program. He said the college was now trying to revamp the program, however, so that students do less work by correspondence and spend more time in class or in a truck.

"We started noticing that a lot of people weren't finishing the correspondence study and that we had to get more on-site training," he said. Many of the students who dropped out of the program ended up defaulting on their loans, said Mr. McCarthy.

The story is different at D'Lor Beauty School, located in Brewer, Me. The institution has only a 12-per-cent default rate, one of the lowest in the country among for-profit trade schools, and therefore is not subject to the penalties set out by the department's new regulations.

Marlene A. Stubbs, financial-aid adviser at the institution, said she had counseling sessions with students to encourage them to repay.

Ms. Stubbs said other factors contributed to the good repayment record of D'Lor's former students. Most of the students are from small communities in Maine, to which they frequently return after they graduate. Students do not want to risk ruining their families' reputations by defaulting on their loans, many of them owed to local bankers.

Ms. Stubbs said that parents also played a big role in insuring that the students repay. She added: "These parents stand behind their children."

IRS Drops Policy That Forced Some Foreign Students to Pay U.S. Income Taxes

Continued from Page A18

David Pryor, an Arkansas Democrat, will soon introduce a bill to do just that. An aide to the Senator said he would go ahead with the bill—even after the I.R.S. decision—to insure that the revenue service would not reverse itself.

In a letter to his Congressional colleagues, Senator Pryor said the tax law should encourage foreign students to study in the United States because of the benefits of such study for the country's foreign policy. Citing the leaders of the Philippines and Costa Rica, he said: "We need only think about the role of U.S. education for Corazon Aquino or Oscar Arias Sanchez to realize how very important exchange programs are to our nation."

One Displeasing Effect

Carol P. Tello, a senior attorney at the I.R.S. and the author of the ruling, said the agency had been prompted by the tax-reform act in 1986 to "take a second look" at the tax laws affecting foreign students. After that review, she said, the I.R.S. decided its new system would be more fair.

The ruling had one effect that displeased college officials. By stating that foreign students were subject to taxation only when they received funds from American sources, the I.R.S. has required that taxes be paid by foreign students who do not study in this country but receive American support.

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Norman Peterson: The new policy "goes a long way to solving some of the most severe problems our foreign students have faced."

College officials said they did not know how many students would be forced to pay the taxes. In recent years, however, many American foundations and colleges have sponsored fellowships for black South African students. Ms. Tello said the I.R.S. did not seek to tax those students, but had been led to do so by the conclusions of its review.

She said the policy would be enforced by requiring the American groups providing the South African students with the scholarships to withhold a portion of the funds for taxes.

Mr. Trías said such students would become "the most disfavored class of United States taxpayer."

Anne D. Moran, executive director of the University of Cape Town Fund, said that subjecting students receiving American support to taxes would force foundations to support fewer students or provide students with less money than they need.

The fund provides grants to 130 black South Africans studying at the University of Cape Town, and also manages the Open Society Scholars Fund, which supports 70 black South Africans studying at five multiracial universities in South Africa.

'We're Already Stretched'

Ms. Moran said that none of the students receiving support could afford to lose any of their funds to pay U.S. taxes. "We're already stretched to provide for them. They're just scraping by," she said.

Another issue involving foreign students was not resolved by the I.R.S. ruling: the tax status of payments made under the Fulbright Program, which provides fellowships to Americans who study abroad and foreign students who come to the United States.

Policy May Be Reviewed

Much of the money under the program is distributed by Fulbright Commissions, which are composed of representatives of the United States and the countries involved in the exchanges. In many cases, the other country provides some of the funds for the program.

Mr. Peterson of the international exchange group said that, in such cases, foreign students should not have to pay tax on their entire grant, but only on the share that was financed in the United States.

Current I.R.S. policy, however, holds that all Fulbright awards are considered to be funds from the United States, and therefore taxable for foreign students.

However, Ms. Tello of the I.R.S. said the policy had been developed in the mid-1950's, based on the 1939 tax code and on outdated descriptions of the Fulbright Program. A review of the policy on the Fulbright Program may take place soon, she said.

FACT FILE: Student-Loan Default Rates at More Than 2,600 Institutions

The following table shows the rates of default on Stafford Student Loans at more than 2,600 non-profit colleges, universities, and vocational and technical schools.

The figures were compiled by the U.S. Department of Education and cover fiscal year 1986. In each state, the institutions are ranked in order of descending rates of default.

The default rate represents the proportion of borrowers entering repayment status in fiscal 1986 who failed to make loan payments in fiscal year 1986 or 1987. The default rate appears in the second column. The third column indicates the number of borrowers who left the institution in 1986. To avoid results based on only a few students, the department did not release data on institutions with fewer than 30 borrowers.

In some instances, the department provided separate default rates for branch campuses of institutions and for certain professional schools, such as law schools, affiliated with universities.

In its list, the department abbreviated many institutions' names. *The Chronicle* obtained the full names by checking the institutional codes provided in the list against directories published by the National Center for Education Statistics.

ALABAMA

Lawson St CC	68.3%	482
Carver St Tech Trade Sch	66.0	141
Trenholm St Tech C	61.5	239
SD Bishop St JC	60.0	215
Alabama St U	52.9	539
CA Fredd St Tech C	52.9	87
Southwest St Tech C	52.8	125
Faulkner U	50.6	235
Bessemer St Tech C	50.6	255
JF Drake St Tech C	50.0	36
Stillman C	49.3	134
Southern Voc CC	48.3	60
Talladega C	46.7	92
Shelton St CC	45.3	525
Miles C	43.5	69
Reid St Tech C	40.3	62
Alabama A&M U	39.6	541
Snead St JC	38.3	47
Walker St Tech C	37.9	116
Geo C Wallace St CC Selma	37.7	106
Gadsden St JC	37.1	132
Oakwood C	36.9	260
Geo C Wallace St CC Dothan	36.5	189
Tuskegee U	35.3	570
Livingston U	34.6	228
John M Patterson St Tech C	33.3	33
James H Faulkner St JC	33.3	99
Chattahoochee Valley CC	32.7	49
Jefferson Davis St JC	32.4	71
Troy St U Montgomery	31.3	144
John C Calhoun St CC	30.8	143
Jefferson St JC	30.4	250
George C Wallace St CC Hanceville	30.4	224
Walker C	30.3	66
Ala Aviation & Tech C	29.6	115
Southern Union St JC	25.9	58
Northwest Alabama St JC	24.2	33
Alexander City St JC	23.3	30
Judson C	21.8	55
Mobile C	21.3	155
Auburn U Montgomery	21.3	437
Enterprise St JC	21.1	38
U of South Alabama	20.1	891
Lurleen B Wallace St JC	19.4	31
U of Alabama Birmingham	19.1	1,310
Jacksonville St U	18.9	567
Troy St U main campus	17.2	482
Spring Hill C	16.7	108
St Vincent's Hospital Sch of Nursing	16.3	43
Muscle Shoals St Tech C	15.4	91
U of Alabama Huntsville	15.1	304
Troy St U Fort Rucker	14.8	81
Athens St C	13.4	67
Birmingham Southern C	12.8	172
Huntingdon C	12.1	66
U of Alabama main campus	12.1	1,387
U of Montevallo	11.7	222
U of North Alabama	9.8	366
Samford U	9.6	477
Auburn U main campus	6.6	1,623
US Sports Acad	4.3	47
U of Alabama C of Med	0.0	59

ALASKA

Anchorage CC	23.4	47
U of Alaska South	8.1	37
U of Alaska Fairbanks	6.3	64

ARIZONA

South Mountain CC	76.7	540
Arizona Inst of Business	65.4	107
Gateway CC	58.3	266
Mohave CC	57.1	35
Central Arizona C	55.1	78
Eastern Arizona C	54.4	114
Mountain Sts Tech Inst	53.4	892
Phoenix C	51.6	605
Rio Salado CC	50.9	214
Arizona Western C	49.1	114
Pima CC	45.8	714
Scottsdale CC	37.9	174
Cochise C	36.6	268
Western International U	36.5	104
Mesa CC	35.0	529
Glendale CC	34.8	267

ARIZONA—Continued

Yavapai C	31.0%	113
Prescott C	24.4	41
Arizona St U	16.2	3,713
Northern Arizona U	15.2	947
Grand Canyon C	13.9	403
U of Arizona	11.4	1,981
American Grad Sch of Int'l Mgmt	4.1	386

ARKANSAS

Arkansas Baptist C	60.0	35
Philander Smith C	53.4	58
U of Arkansas Pine Bluff	36.1	72
Ouachita Baptist U	21.1	57
U of Ark main campus	15.5	245
John Brown U	9.1	77
Arkansas St U	7.1	98
U of Arkansas Little Rock	6.6	61
Harding U	6.3	382
U of Central Arkansas	5.7	35

CALIFORNIA

San Francisco CC Centers	57.1	198
Cosumnes River C	50.4	113
Compton CC	46.5	43
Heald C Oakland	36.6	183
Los Angeles Southwest C	35.9	92
Merced C	35.4	130
Los Medanos C	34.2	79
Oxnard C	34.1	41
Casa Loma C	33.3	63
San Bernardino Valley C	32.0	75
Fresno City C	31.5	311
Antelope Valley C	31.1	74
Los Angeles Trade-Tech C	28.6	220
Allan Hancock C	27.7	47
Heald Business C San Francisco	27.6	388
Merritt C	27.4	62
Santa Monica C	27.0	285
C of Alameda	27.0	163
Sacramento City C	26.8	370
C of the Siskiyous	26.3	57
Laney C	25.6	117
Los Angeles City C	25.5	157
Contra Costa C	25.5	106
Chaffey CC	25.4	114
Heald C Fresno	25.1	207
San Joaquin Delta C	24.8	222
Southwestern C	24.5	290
Columbia C	24.4	45
San Diego City C	24.4	266
Riverside City C	24.3	214
Crafton Hills C	24.2	33
Diablo Valley C	23.7	118
Cañada C	23.5	51
Shasta C	23.5	149
Heald Business C Hayward	23.4	141
Marymount Palos Verdes C	23.1	78
Kelsey Jenney C	22.9	175
Santa Barbara City C	22.8	228
Kings River CC	22.7	66
New C of California	22.6	137
Long Beach CC	22.0	545
Butte CC	22.0	268
Skyline C	21.9	32
West Hills C	21.7	46
Yuba C	21.6	134
Solano County CC	21.5	79
Heald C Sacramento	21.1	175
Los Angeles Harbor C	21.1	57
City C of San Francisco	21.0	447
U of West Los Angeles	20.4	196
Heald Inst of Tech Martinez	20.1	154
Heald C Rohnert Park	19.4	72
Los Angeles Pierce C	19.4	175
Bakersfield C	19.2	52
Hartnell CC	19.0	42
California St U Stanislaus	18.9	281
C of Marin	18.6	102
Pasadena City C	18.6	140
American River C	18.6	237
Cuesta CC	18.4	152
Moorpark C	18.3	104
Rancho Santiago C	18.2	264
Heald Inst of Tech San Francisco	18.2	363

CALIFORNIA—Continued

C of the Sequoias	18.0%	50
Heald Business C Walnut Creek	18.0	200
Santa Rosa JC	17.9	290
Victor Valley CC	17.8	73
Fullerton C	17.8	276
C of the Redwoods	17.5	211
Mount San Antonio C	17.5	103
Coastline CC	17.4	46
California Inst of the Arts	17.4	167
West Los Angeles C	17.3	52
Pacific Christian C	16.9	59
Cabrillo C	16.7	126
Northrop U	16.5	127
Cogswell C	16.4	67
Heald Business C San Jose	16.4	195
Napa Valley C	16.4	61
San Francisco Art Inst	16.3	104
Humphreys C	16.2	37
California Trade Tech	16.1	31
San Diego Mesa C	16.0	256
Modesto JC	16.0	50
Glendale CC	15.9	88
Citrus C	15.9	63
SF Conservatory of Music	15.8	38
Chabot C	15.8	222
El Camino CC Dist	15.7	197
Golden West C	15.4	331
Ohlone C	15.0	60
Mt San Jacinto C	14.5	55
Lassen C	14.5	62
De Anza C	14.4	278
Heald C Santa Clara	14.3	168
Simpson C	14.0	57
Ventura C	13.9	72
Woodbury U	13.6	66
U of La Verne	13.2	365
Orange Coast C	13.1	321
C of Notre Dame	13.0	92
California St U Dominguez Hills	13.0	376
American Acad of Dramatic Arts	13.0	100
Los Angeles Valley C	13.0	77
US International U	12.9	286
West Coast Christian C	12.9	31
Cypress C	12.9	163
Golden Gate U	12.7	589
Master's C	12.7	55
S Cal Inst of Architecture	12.5	48
C of San Mateo	12.5	80
Grossmont C	12.4	225
California St U Los Angeles	12.4	579
Palomar C	11.6	146
San Jose CC	11.1	45
East Los Angeles C	11.1	45
Rio Hondo JC	11.1	72
International C	11.0	136
California Baptist C	11.0	118
Cal Inst of Integral Studies	10.8	37
California St U Northridge	10.6	1,317
West Valley C	10.4	106
Cerritos C	10.3	68
San Francisco St U	10.1	1,680
California St U Fresno	9.9	1,264
Mira Costa C	9.9	71
Loma Linda U La Sierra	9.8	225
Monterey Peninsula C	9.5	42
California St C Bakersfield	9.5	211
National U	9.4	1,644
Loyola Marymount U	9.4	478
Pacific Sch of Religion	9.4	32
Southern California C	9.3	151
Monterey Inst of International Studies	9.2	120
Chapman C	9.1	352
Mt St Mary's C	9.0	155
Pitzer C	8.7	103
Holy Names C	8.6	58
St Mary's C of California	8.6	302
San Diego St U	8.5	2,934
Dominican C of San Rafael	8.5	47
Art Center C of Design	8.5	177
Cal St U Long Beach	8.4	1,879
Azusa Pacific U	8.2	304
Cal St U San Bernardino	8.1	381
Cal St U Sacramento	8.1	1,587
California St U Hayward	8.1	768
California St U Fullerton	8.0	939
Foothill C	7.9	101
California Maritime Acad	7.9	76
Gemological Inst of America	7.9	89
San Jose City C San Jose	7.7	39
Otis Art Inst of Parsons Sch of Design	7.7	91
Sonoma St U	7.6	448
California C of Arts & Crafts	7.6	119
John F Kennedy U	7.5	240
Samuel Merritt Sch of Nursing	7.4	68
San Jose St U	7.3	1,296
Sierra C	7.3	82
Pacific Union C	7.3	247
Cal C of Podiatric Med	7.2	89
U of California Santa Cruz	7.2	664
U of Southern California	7.2	3,025
Christian Heritage C	7.1	56
California St U Chico	6.8	1,428
West Coast U	6.8	74
Cal Sch of Professional Psychology Berkeley	6.7	30

CALIFORNIA—Continued

C of Osteopathic Med of the Pacific	6.7%	45
Biola U	6.6	320
Bethany Bible C	6.5	92
U of San Diego	6.4	606
Whittier C	6.4	234
U of California Irvine	6.3	949
Cal St Poly U Pomona	6.3	1,002
California Lutheran C	6.0	251
Christ C Irvine	5.9	34
American Conservatory Theatre	5.9	34
Cal Sch of Professional Psychology Los Angeles	5.9	68
U of Redlands	5.8	394
U of San Francisco	5.7	775
Mills C	5.6	124
U of California Berkeley	5.6	2,156
Los Angeles C of Chiropractic	5.6	144
U of Cal Los Angeles	5.5	3,212
Occidental C	5.5	183
Los Angeles County Medical Ctr Sch	5.4	92
Pasadena C of Chiropractic	5.4	37
Humboldt St U	5.4	722
Southwestern U Sch of Law	5.3	227
U of the Pacific Stockton	5.2	572
Point Loma C	5.2	309
Fuller Theol Sem	5.1	175
U of Cal Santa Barbara	5.1	1,715
Cal Sch of Professional Psych main campus	5.1	39
Life Chiropractic C West	5.0	80
Pepperdine U	5.0	441
Claremont Grad Sch	4.9	143
U of California San Diego	4.9	1,132
U of San Diego Sch of Law	4.9	204
Coleman C	4.8	372
California Family Study Ctr	4.7	64
Pepperdine U Sch of Law	4.5	110
Cal Sch Professional Psychology San Diego	4.4	45
Cal Poly St U San Luis Obispo	4.4	1,841
Scripps C	4.3	69
Harvey Mudd C	4.2	71
Palmer C of Chiropractic	4.2	119
Cleveland Chiropractic C	4.2	96
U of California Riverside	4.0	325
Fielding Inst	3.9	51
U of Pacific Sacramento	3.9	310
Stanford U Sch of Med	3.8	52
U of Cal San Francisco	3.7	327
Claremont McKenna C	3.6	112
Pomona C	3.6	168
U of California Davis	3.5	1,626
Santa Clara U	3.4	697
Loma Linda U Loma Linda	3.1	354
Pacific C of Fresno	2.6	78
Stanford U	2.3	1,041
U of Cal SF Med Ctr	2.1	379
Stanford U Sch of Law	1.4	72
Stanford U Grad Sch of Bus	1.4	148
S Cal C of Optometry	1.3	78
Westmont C	1.2	168
California Inst of Tech	0.0	73
U of the Pacific Sch of Dentistry	0.0	60

COLORADO

San Luis Valley Area Voc Sch	27.9	61
Otero JC	25.0	80
Pikes Peak CC	23.6	420
TH Pickens Tech Ctr	23.4	47
Pueblo CC	22.2	153
Trinidad St JC	21.1	76
Red Rocks CC	18.5	119
Aims C	16.7	168
CC of Denver	16.5	127
Adams St C	16.5	242
Arapahoe CC	15.5	181
Colorado Christian C	15.0	40
San Juan Basin Area Voc Sch	15.0	40
Naropa Inst	14.8	61
Colorado Northwestern CC	14.0	43
Colorado Mountain C West	12.3	114
U of Southern Colorado	12.2	516
Morgan CC	12.2	41
Nazarene Bible C	10.5	38
Front Range CC	10.5	143
Metropolitan St C	9.9	655
Western St C of Colo	9.3	300
Mesa C	9.1	350
Northeastern JC	8.5	142
Larimer Co Voc-Tech Ctr	8.3	84
Regis C	8.2	195
U of Colorado Denver	7.4	729
Loretto Heights C	6.3	111
Colorado C	5.6	197
Ft Lewis C	5.3	226
U of Denver	5.2	1,037
U of Northern Colorado	4.5	1,183
Iliff Sch of Theol	4.3	46
U of Colo main campus	3.8	2,532
Beth-El C of Nursing	3.2	31
Colorado St U	2.6	1,984
U of Colorado Colorado Springs	2.0	406
Colorado Sch of Mines	1.6	311
U of Colorado Med Ctr	1.4	287

COLORADO—Continued

Conservative Baptist Theol Sem	0.0%	48

CONNECTICUT

Quinebaug Valley CC	37.8	37
South Central CC	32.7	49
Housatonic CC	30.6	49
Mohegan CC	29.8	57
Mattatuck CC	19.7	66
Bullard-Havens Regional Voc-Tech Sch	19.6	51
Middlesex CC	15.6	32
Greater New Haven St Tech C	15.4	52
Manchester CC	14.9	101
Norwalk St Tech C	14.5	55
Greater Hartford CC	13.5	74
Norwalk CC	12.3	57
Sacred Heart U	11.4	352
Post C	10.9	129
Mitchell C	10.8	65
Northwestern Conn CC	10.0	40
Albertus Magnus C	9.3	43
Southern Connecticut St C	8.8	900
U of New Haven	7.6	488
U of Bridgeport	7.3	776
Hartford St Tech C	7.1	56
Western Connecticut St C	6.8	307
Eastern Connecticut St C	6.8	410
U of Hartford	6.7	537
Tunxis CC	6.5	31
St Joseph C	6.0	100
Briarwood C	5.5	91
U of Connecticut Stamford	5.1	39
Wesleyan U	4.4	296
Trinity C	4.2	143
Central Connecticut St C	3.8	794
U of Connecticut Storrs	3.7	1,762
Yale U	3.5	904
Quinnipiac C	3.5	398
U of Connecticut Hartford	2.9	174
St Francis Hospital Sch of Nursing	2.6	38
Fairfield U	2.4	371
Connecticut C	2.3	129
Rensselaer Polytech Inst Broad Brook	0.0	34
Bridgeport Hospital Sch	0.0	43

DELAWARE

Delaware St C	25.9	170
Del Tech & CC Newark	19.7	76
Del Tech & CC Georgetown	19.6	51
Goldey Beacom C	17.5	183
Wilmington C	10.9	64
Wesley C	10.2	108
Brandywine C of Widener U	7.3	123
Delaware Law Sch of Widener U	6.4	156
U of Delaware	3.6	1,453

DISTRICT OF COLUMBIA

Southeastern U	35.6	73
Antioch Sch of Law	30.6	144
U of District of Columbia	28.4	176
Howard U	27.3	1,403
Corcoran Sch of Art	16.1	31
Gallaudet U	14.9	94
Benjamin Franklin U	11.1	45
Mt Vernon C	10.3	39
Georgetown U Sch of Dentistry	9.1	110
Trinity C	8.5	59
American U	7.7	962
George Washington U	6.8	1,091
Wesley Theol Sem	6.7	30
Georgetown U Sch of Medicine	6.3	79
Catholic U of America	6.2	663
George Washington U Law Sch	3.9	254
Georgetown U	3.9	642
Johns Hopkins U Advanced Int'l Study	3.4	58
George Washington U Sch of Medicine	1.3	75

FLORIDA

Florida Memorial C	46.2	210
Bethune Cookman C	43.0	279
Edward Waters C	38.3	60
ITT Tech Inst	25.0	120
Erwin Area Voc-Tech Ctr	24.2	190
Tampa C	23.9	677
Atlantic Voc-Tech Ctr	23.3	30
Lee County Area Voc-Tech Ctr	22.9	96
Tallahassee CC	20.6	102
Florida CC at Jacksonville	19.1	173
Sheridan Voc-Tech Ctr	19.0	42
Miami-Dade CC North	19.0	142
Broward CC	18.4	364
Daytona Beach CC	16.9	248
Lake Sumter CC	16.7	36
Florida A&M U	15.8	442
Hillsborough CC	14.4	285
Pasco-Hernando CC	13.5	37
Orlando C	13.5	378
Jones C Jacksonville	13.1	590
Webber C	11.8	34

Continued on Following Page

FACT FILE: Student-Loan Default Rates at More Than 2,600 Institutions—Continued

FLORIDA—Continued

Warner Southern C	11.8%	34
Central Florida CC	11.8	51
Indian River CC	11.8	51
St Thomas U	11.5	262
St Petersburg JC	11.3	564
St Petersburg Voc Inst	11.0	200
Lewis M Lively Area Voc-Tech Ctr	10.8	37
Valencia CC	10.8	223
Florida Southern C	10.3	87
Miami-Dade CC New World Ctr	10.1	69
Lake City CC	9.8	51
Embry-Riddle Aeronautical U	9.8	942
Southeastern C of Assemblies of God	9.7	155
Brevard CC	9.4	235
C of Boca Raton	9.1	55
Miami-Dade CC South	8.8	182
Florida International U	8.7	380
Santa Fe CC	8.6	243
Baptist Bible Inst	8.6	35
Miami-Dade CC Med Ctr	8.5	59
Edison CC	8.5	71
Pinellas Voc-Tech Inst	8.4	166
Palm Beach JC	8.0	150
Eckard C	7.9	126
U of Tampa	7.6	145
Pensacola JC	6.8	88
U of Miami	6.7	1,090
Florida Inst of Tech	6.7	568
U of West Florida	6.3	237
Palm Beach Atlantic C	6.0	100
U of Central Florida	5.7	1,152
U of Miami Sch of Med	5.7	53
Seminole CC	5.6	107
Polk CC	5.6	36
Nova U	5.5	688
Rollins C	5.5	109
St Leo C	5.5	109
Gulf,Coast CC	5.4	37
Flagler C	4.7	86
Ringling Sch of Art & Design	4.4	45
Hobe Sound Bible C	4.4	45
Florida Atlantic U	4.4	341
U of South Florida	4.2	1,195
Manatee JC	4.1	74
Florida St U	4.0	1,493
U of North Florida	3.9	128
Barry U	3.1	191
U of Florida	3.1	1,983
Stetson U	2.9	170
Jacksonville U	1.5	130

GEORGIA

Paine C	50.3	153
Interdenominational Theol Sem	37.9	87
Morehouse C	36.4	297
Morris Brown C	36.3	135
Atlanta Area Tech Sch	34.9	86
Clark C	29.3	256
Spelman C	28.2	131
Moultrie Area Tech Inst	27.8	54
Ft Valley St C	22.3	278
Atlanta Sch of Art	22.2	45
Savannah Area Voc-Tech Sch	18.5	65
Oglethorpe U	15.9	69
Savannah St C	14.0	121
Albany St C	13.6	88
Savannah C of Art & Design	12.9	93
Gupton Jones C of Mortuary Science	12.8	78
North Georgia Tech Inst	10.1	79
Dekalb CC	9.7	217
Swainsboro Tech Inst	9.1	66
Life Chiropractic C	8.5	352
Augusta Tech Inst	8.3	48
Columbus C	7.7	209
Valdosta Tech Inst	7.1	42
Wesleyan C	6.7	30
Brunswick JC	6.7	45
Armstrong St C	6.6	137
Abraham Baldwin Ag C	6.5	108
Mercer U Southern Sch of Pharmacy	6.5	62
Albany Tech Inst	6.3	32
Georgia Southwestern C	6.2	145
South Georgia C	5.7	53
Georgia St U	5.6	950
La Grange C	5.6	72
Piedmont C	5.1	39
Augusta C	5.0	141
Macon JC	4.7	107
Berry C	4.5	88
Kennesaw C	4.5	157
Clayton JC	4.4	45
Floyd JC	4.2	71
Gordon C	4.2	48
West Georgia C	4.1	340
Mercer U	3.9	231
Toccoa Falls C	3.7	80
Valdosta St C	3.6	386
Agnes Scott C	3.5	57
Brenau C	2.8	107
Southern C of Tech	2.7	184
Albany JC	2.7	75
Georgia C	2.5	280
Georgia Southern C	2.5	441
Shorter C	2.3	44

GEORGIA—Continued

Georgia Inst of Tech	2.3%	796
Middle Georgia C	2.0	50
Tift C	2.0	50
U of Georgia	1.6	1,903
Emory U	1.5	667
Ga Baptist Hospital Sch of Nursing	1.5	67
Atlanta Baptist C	1.4	69
North Georgia C	1.2	172
Medical C of Georgia	0.5	222
Athens Area Tech Inst	0.0	32

GUAM

U of Guam	59.8	224

HAWAII

Hawaii Pacific C	53.7	415
Leeward CC	39.0	59
Brigham Young U	32.9	143
U of Hawaii Hilo	30.0	240
Honolulu CC	27.7	65
Kapiolani CC	23.7	93
Hawaii Loa C	22.8	57
Chaminade U of Honolulu	19.3	119
Maui CC	9.8	41
U of Hawaii Manoa	8.3	828

IDAHO

Lewis Clark St C	33.8	77
North Idaho C	28.1	57
Idaho [illegible] U	15.4	117
Boise St U	14.1	64
Ricks C	11.4	263
Northwest Nazarene C	9.0	78
U of Idaho	6.6	197

ILLINOIS

Metropolitan Business C	28.1	96
MacCormac JC	25.0	72
Robert Morris C	15.2	362
National C of Education Evanston	11.3	213
Thornton CC	9.6	52
Trinity Christian C	7.8	51
Columbia C	7.8	180
Sch of Art Inst of Chicago	7.4	94
Joliet JC	7.0	57
Danville Area CC	6.8	265
Olivet Nazarene C	6.7	209
National C of Education Lombard	6.4	94
St Xavier C	5.9	51
Governors St U	5.9	51
McKendree C	5.7	35
East-West U	5.1	39
Black Hawk C	5.0	119
Greenville C	4.9	41
Chicago St U	4.8	104
Lake Forest C	4.5	44
Carl Sandburg C	4.5	44
City C's of Chicago Loop	4.1	49
Rock Valley C	3.9	76
U of Chicago	3.8	757
Illinois Inst of Tech	3.5	227
Garrett Evangelical Theol Sem	3.3	30
Lincoln C	3.3	30
William Rainey Harper C	3.2	31
Southern Illinois U Carbondale	3.2	1,079
Parks C of St Louis U	3.1	130
Northwestern U main campus	2.9	615
Rend Lake C	2.8	36
Augustana C	2.7	147
C of DuPage	2.7	75
MacMurray C	2.6	38
Shawnee CC	2.6	39
Monmouth C	2.4	42
Mundelein C	2.4	42
Waubonsee CC	2.4	42
Loyola U	2.3	341
DePaul U	2.3	428
Kaskaskia C	2.3	43
Northeastern Illinois U	2.2	90
Principia C	2.1	48
U of Illinois Chicago	2.0	450
Millikin U	2.0	102
Roosevelt U	1.9	258
Rockford C	1.9	53
Rosary C	1.8	56
Trinity C	1.7	60
Bradley U	1.7	241
John Marshall Law Sch	1.6	122
Quincy C	1.6	62
Concordia Teachers C	1.6	54
George Williams C	1.6	64
U of Health Sciences Chicago Med Sch	1.5	66
Aurora U	1.5	68
Southern Illinois U Edwardsville	1.5	480
Kishwaukee C	1.4	70
Sangamon St U	1.4	71
Illinois C of Optometry	1.3	75
Northern Illinois U	1.3	915
City C's of Chicago Kennedy-King	1.1	87
Elmhurst C	1.1	89
Triton C	1.1	91
Northwestern U Chicago	1.1	277

ILLINOIS—Continued

Wheaton C	1.0%	192
Western Illinois U	0.9	635
U of Illinois Urbana-Champaign	0.9	1,299
John Wood CC	0.9	114
Parkland C	0.9	231
Lincoln Land CC	0.8	119
U of Illinois Med Sch	0.6	162
Illinois St U	0.3	795
Eastern Illinois U	0.3	398
Lincoln Christian C	0.0	36
Southeastern Illinois C	0.0	37
Richland CC	0.0	37
Illinois Eastern CC	0.0	39
Illinois Valley CC	0.0	40
Elgin CC	0.0	42
Spoon River C	0.0	44
C of St Francis	0.0	45
Judson C	0.0	45
Lake Land C	0.0	48
Illinois C	0.0	49
C of Lake County	0.0	52
Kankakee CC	0.0	54
North Central C	0.0	56
Sauk Valley C	0.0	64
Illinois Benedictine C	0.0	68
John A Logan C	0.0	68
Rush U St Luke's Med	0.0	70
Trinity Evangelical Divinity Sch	0.0	70
Lewis U	0.0	77
North Park C & Theol Sem	0.0	83
Illinois Wesleyan U	0.0	84
Illinois Central C	0.0	120
Lewis & Clark CC	0.0	145
Belleville Area C	0.0	263

INDIANA

Martin Center C	47.2	36
Indiana Voc-Tech C Central Indiana	45.1	399
St Joseph's Calumet C	30.0	70
Indiana Voc-Tech C Southwest	30.0	170
Indiana U Northwest	26.7	300
Indiana Inst of Tech	25.8	66
St Mary of the Woods C	22.9	48
Indiana Voc-Tech C Northeast	21.4	201
Indiana Voc-Tech C Northcentral	17.0	88
Marian C Indianapolis	16.7	162
Purdue U North Central	15.8	95
Purdue U Calumet	15.6	360
Oakland City C	15.4	162
Indiana Voc-Tech C Wabash Valley	14.4	97
Franklin C	13.2	91
Indiana St U	12.8	1,158
Vincennes U	11.9	862
Indiana U Southeast	11.0	263
U of Indianapolis	10.6	236
Marion C	10.4	212
Indiana U Purdue U Indianapolis	9.9	1,182
Anderson C	9.7	319
Earlham C	9.6	104
St Elizabeth Hospital Sch of Nursing	9.4	32
Purdue U Ft Wayne Ctr	8.9	461
Butler U	8.6	372
Bethel C	8.2	61
Indiana U South Bend	8.1	172
Ft Wayne Bible C	7.9	63
Indiana U Bloomington	7.8	3,551
St Francis C	7.8	90
Ball St U	7.7	2,052
Valparaiso U	6.9	432
Manchester C	6.8	162
U of Evansville	6.5	429
Tri-State U	6.5	123
St Joseph's C	6.3	128
Depauw U	5.2	172
Indiana U Kokomo	4.8	126
Hanover C	4.7	107
Huntington C	4.4	68
Concordia Theol Sem	4.4	68
U of Southern Indiana	3.6	252
U of Notre Dame	3.2	777
Purdue U main campus	3.1	3,189
Deaconess Hospital Sch of Nursing	2.9	34
Taylor U	2.8	177
Wabash C	2.7	73
Grace C	2.6	193
Goshen C	2.6	156
Memorial Hospital of South Bend	2.5	40
Rose-Hulman Inst of Tech	2.2	180
St Mary's C	1.3	155

IOWA

Eastern Iowa CC	65.1	43
Indian Hills CC	35.1	74
Iowa Western CC Clarinda	34.3	67
Southeastern CC	27.1	170
Clinton CC	26.9	130
Eastern Iowa CC Scott	26.8	295
Muscatine CC	21.0	62
Iowa Western CC Council Bluffs	20.5	464
Hawkeye Inst of Tech	20.0	549

IOWA—Continued

Western Iowa Tech CC	19.1%	517
Ellsworth CC	18.8	165
Kirkwood CC	18.6	982
Morningside C	16.2	214
Des Moines Area CC	16.1	886
Iowa Central CC	17.7	389
William Penn C	17.1	82
Grandview C	15.8	165
North Iowa Area CC	15.7	293
Southwestern CC	14.8	149
Briar Cliff C	14.7	163
Marshalltown CC	14.2	141
Upper Iowa U	13.9	79
Indian Hills CC	13.9	353
SE Iowa Area CC South	13.1	38
Marycrest C	12.3	106
Iowa Lakes CC South	11.0	292
Waldorf C	10.5	57
St Ambrose C	10.4	183
St Luke's Sch of Nursing	9.7	31
Westmar C	9.2	87
Northwest Iowa Tech C	9.1	143
Wartburg C	8.8	170
U of Osteo Med & Health Sci	8.7	127
Mt Mercy C	8.6	175
American Inst of Business	8.3	254
U of Northern Iowa	7.8	1,723
U of Iowa	7.6	3,450
Drake U	7.6	608
Graceland C	7.4	135
Iowa Wesleyan C	6.9	87
Palmer C of Chiropractic	6.8	457
Clarke C	6.8	118
Simpson C	6.8	177
Northeast Iowa Tech Inst	6.5	291
Buena Vista C	6.5	369
Maharishi International U	6.4	110
Vennard C	6.3	32
U of Dubuque	6.2	146
Coe C	5.9	153
Mt St Clare C	5.5	55
Central U of Iowa	5.1	217
Loras C	4.8	207
Luther C	4.6	302
U of Iowa C of Dentistry	4.3	47
Iowa St U	3.9	3,138
Cornell C	3.8	106
Grinnell C	3.2	95
Faith Baptist Bible C	2.7	74
Northwestern C	2.4	166
Dordt C	0.6	180
Iowa Methodist Hosp Sch	0.0	32

KANSAS

Donnelly C	70.2	292
SE Kansas Area Voc-Tech Sch	53.3	45
Kansas City Area Voc-Tech Sch	52.7	74
St Mary of the Plains C	50.1	499
Ft Scott CC	49.3	211
Central Kansas Area Voc-Tech Sch	45.2	42
Wichita Area Voc-Tech Sch	44.8	250
Neosho County CC	44.6	56
Coffeyville CC	43.8	73
Cowley County CC	40.6	91
Kaw Area Voc-Tech Sch	38.9	149
Independence CC	38.7	80
Garden City CC	38.0	79
Pratt CC	36.9	84
Allen County CC	36.7	49
Flint Hills Area Voc-Tech Sch	36.1	61
Hutchinson CC	34.6	133
Butler County CC	31.7	186
Kansas City Kansas CC	31.4	226
Highland CC	30.8	52
Seward County CC	28.9	38
Wichita St U	28.8	1,566
Barton County CC	27.1	107
Central C	25.5	55
Labette CC	25.3	75
Ottawa U	25.3	150
St Mary C	24.8	145
McPherson C	24.5	94
Kansas Newman C	23.4	107
Southwestern C	23.3	129
Johnson County CC	21.9	269
Dodge City CC	21.6	102
Washburn U of Topeka	21.1	913
Pittsburg St U	20.5	818
Kansas Wesleyan U	18.3	104
St John's C	17.6	51
Friends U	16.1	155
Cloud County CC	15.6	96
Hesston C	15.2	105
Mid-America Nazarene C	14.9	242
Baker U	14.8	122
NW Kansas Area Voc-Tech Sch	14.7	156
Manhattan Area Voc-Tech Sch	14.5	131
Colby CC	14.1	78
Tabor C	14.1	64
Emporia St U	13.4	559
Salina Area Voc-Tech Sch	13.4	112
Bethel C	13.1	122
U of Kansas	12.3	2,528
Bethany C	11.7	120
Kansas St U	11.3	2,870

KANSAS—Continued

Kansas Tech Inst	11.2%	107
North Central Kansas Voc-Tech Sch	10.7	150
Benedictine C	10.1	89
Ft Hays St U	9.9	690
Marymount C	7.3	110
Sterling C	6.6	61
Stormont-Vail Sch of Nursing	5.0	40
U of Kansas C of Health Science	1.7	118

KENTUCKY

Kentucky St U	38.2	34
Cumberland C	13.0	69
Morehead St U	9.6	104
Asbury C	8.9	101
Kentucky Christian C	8.0	87
Northern Kentucky U	7.8	77
Eastern Kentucky U	7.7	207
U of Louisville	7.3	137
Murray St U	5.5	145
Western Kentucky U	3.8	133
U of Kentucky	3.4	265
Asbury Theol Sem	0.0	57

LOUISIANA

Sullivan Voc-Tech Sch	52.1	73
Grambling St U	46.1	955
Slidell Voc-Tech Sch	46.0	50
Jefferson Parish Voc-Tech Sch	44.9	49
Southern U and A&M C	42.8	1,122
Delta-Ouachita Voc-Tech Inst	38.7	62
Dillard U	36.0	228
Capitol Area Voc Sch	34.1	41
Delgado C	31.3	160
Shreveport-Bossier Voc-Tech Inst	29.4	51
Southern U New Orleans	28.8	156
Sowela Tech Inst	27.9	68
Our Lady of Holy Cross C	25.6	78
Louisiana St U Alexandria	24.8	101
Lafayette Regional Voc-Tech Inst	24.5	49
Xavier U of La	24.5	196
Southern U Shreveport	24.2	33
U of Southwestern La	20.1	801
Baton Rouge Voc-Tech Inst	20.0	55
Alexandria Voc-Tech Inst	17.5	40
TH Harris Voc-Tech Inst	17.4	46
Northwestern St U	16.2	395
Southeastern Louisiana U	15.1	517
U of New Orleans	14.8	918
Northeast Louisiana U	14.4	617
Charity Hospital Sch of Nursing	14.1	64
Louisiana C	11.4	44
Louisiana Tech U	10.7	721
Tulane U Sch of Medicine	10.4	48
Centenary C of Louisiana	10.0	70
McNeese St U	9.9	353
Loyola U in New Orleans	8.4	379
La St U Baton Rouge	8.4	1,352
Louisiana St U Eunice	8.1	74
Tulane U	7.5	721
Louisiana St U Shreveport	5.6	231
Nicholls St U	5.6	233
La St U New Orleans	2.7	148

MAINE

Washington County Voc-Tech Inst	30.6	134
U of Maine Augusta	20.7	208
Portland Sch of Art	18.0	50
U of Maine Fort Kent	15.9	63
U of Maine Machias	15.3	111
U of Southern Maine	13.2	1,068
Central Me Voc-Tech Inst	12.8	109
Kennebec Valley Voc-Tech Inst	10.0	50
U of Maine Farmington	9.7	308
Thomas C	9.6	73
Southern Me Voc-Tech Inst	9.3	214
U of Maine Presque Isle	9.2	131
Husson C	9.1	230
Westbrook C	8.6	151
St Joseph's C	7.7	181
Maine Maritime Acad	7.2	111
Eastern Me Voc-Tech Inst	7.1	140
Northern Me Voc-Tech Inst	6.9	145
U of Maine Orono	6.5	1,534
U of New England	6.4	94
Colby C	5.4	130
Bowdoin C	5.4	93
Bates C	3.8	104
Unity C	2.6	38

MARYLAND

Sojourner-Douglass C	68.3	164
Dundalk CC	54.3	70
CC of Baltimore	46.3	227
Morgan St U	38.2	432
Coppin St C	37.3	153
U of Md Eastern Shore	36.5	156
Bowie St C	33.8	154
Cecil CC	31.0	42
Prince George's CC	30.5	239
Catonsville CC	30.3	238

MARYLAND—Continued

Essex CC	30.0%	150
Howard CC	25.0	52
Montgomery CC	23.8	437
Anne Arundel CC	23.0	122
Hagerstown JC	21.6	51
Allegany CC	20.7	135
Columbia Union C	18.8	80
Harford CC	18.0	61
Frederick CC	16.7	30
C of Notre Dame of Md	15.5	58
Washington Bible C	15.2	33
U of Maryland U C	14.6	403
Capitol Inst of Tech	14.5	110
Maryland Inst C of Art	13.2	121
Washington C	13.0	54
U of Baltimore	10.6	284
Salisbury St C	10.5	256
Towson St U	9.8	676
Frostburg St C	8.9	292
Villa Julie C	8.8	102
U of Maryland Baltimore Co	8.4	335
Hood C	8.3	96
St Mary's C of Maryland	7.8	90
U of Maryland C Park	7.8	2,307
Goucher C	6.1	82
Western Maryland C	5.3	150
Mt St Mary's C	5.3	133
Loyola C	5.1	274
Johns Hopkins U	4.0	299
U of Maryland Baltimore	3.9	331
St John's C	2.1	48

MASSACHUSETTS

Boston Conservatory of Music	15.2	33
Fisher JC Boston	14.3	56
Eastern Nazarene C	14.0	86
Emerson C	13.3	143
Berklee C of Music	13.2	243
Mount Ida C	12.5	64
American International C	12.2	82
U of Massachusetts Boston	12.0	50
Chamberlayne Sch & JC	9.1	44
Hampshire C	9.1	110
Wentworth Inst of Tech	7.8	90
Wheaton C	6.8	74
U of Lowell	6.7	60
New England Conservatory of Music	6.5	62
Northeastern U	6.2	872
Springfield C	6.2	210
Suffolk U	5.7	87
Bay Path JC	5.7	88
Clark U	5.3	132
Curry C	5.1	39
Boston U	5.0	1,454
Newbury C	4.7	64
Mt Holyoke C	4.5	154
Gordon C	4.4	91
Western New England C	3.6	220
Simmons C	3.5	114
Endicott C	3.4	59
Tufts U	3.3	303
Nichols C	3.2	31
Pine Manor C	3.1	32
Bentley C	3.1	193
Dean Acad & C	3.0	67
Wheelock C	2.9	34
Salem St C	2.9	35
Brandeis U	2.7	182
Becker JC	2.7	110
U of Mass Amherst	2.5	634
New England C of Optometry	2.4	41
Williams C	2.2	138
Amherst C	2.1	95
Harvard U	2.1	621
Worcester Polytechnic Inst	2.1	96
Merrimack C	2.0	49
Boston C	2.0	654
Assumption C	1.9	52
Lesley C	1.9	162
Harvard Grad Sch of Business Admin	1.9	209
New England Sch of Law	1.6	61
Wellesley C	1.5	136
Smith C	1.4	213
Harvard Law Sch	1.1	184
Massachusetts Inst of Tech	1.0	516
C of the Holy Cross	0.9	116
Simon's Rock of Bard C	0.0	38
Stonehill C	0.0	57
Babson C	0.0	86

MICHIGAN

Lewis C of Business	75.8	132
Highland Park CC	72.2	263
Detroit Inst of Commerce	67.1	255
Wayne County CC	63.7	391
Michigan Christian JC	50.0	46
Kalamazoo Valley CC	47.2	290
Jordan C	47.1	818
Marygrove C	45.7	138
Jackson Business Inst	45.2	115
Cleary C	42.0	88
Washtenaw CC	38.1	226
Muskegon CC	37.8	90
Kellogg CC	37.3	118
Alpena CC	36.9	84
Muskegon Business C	34.0	200
Macomb County CC	33.0	97
Oakland CC	32.7	269

MICHIGAN—Continued

Lake Michigan C	32.4%	68
Southwestern Michigan C	31.5	108
Henry Ford CC	30.6	327
Schoolcraft C	29.1	79
Wayne St U	27.8	1,191
Mercy C of Detroit	27.5	189
Suomi C	27.4	190
Olivet C	27.1	118
North Central Michigan C	26.5	68
U of Detroit	24.5	387
Lansing CC	23.1	402
Mid-Michigan CC	22.4	85
Eastern Michigan U	21.7	1,387
Great Lakes JC of Business	21.7	106
Kirtland CC	20.7	82
Monroe County CC	20.6	102
Davenport C of Business	20.4	869
Northwood Inst	18.8	250
Bay de Noc CC	18.2	176
West Shore CC	17.4	46
Madonna C	17.4	138
Oakland U	17.3	519
Detroit C of Law	17.1	123
Western Michigan U	17.1	1,642
Siena Heights C	17.0	147
Montcalm CC	16.7	48
Nazareth C	16.5	79
Thomas M Cooley Law Sch	16.0	212
Grand Rapids JC	16.0	325
Kendall Sch of Design	15.6	96
Saginaw Valley St C	15.6	269
Andrews U	14.9	415
Delta C	14.1	284
Adrian C	13.7	146
U of Mich Sch of Medicine	13.6	44
Concordia C	13.6	66
Gogebic CC	13.4	112
Charles S Mott CC	13.0	131
Walsh C of Accountancy and Business Admin	12.0	83
Lawrence Inst of Tech	12.0	317
Ferris St C	11.5	1,347
U of Michigan Dearborn	11.5	244
Michigan St U	11.1	3,140
Kalamazoo C	11.0	91
St Clair County CC	10.8	130
Northern Michigan U	10.5	831
Central Michigan U	10.3	1,673
Grand Valley St C	9.8	408
Grand Rapids Sch of Bible & Music	9.4	32
U of Michigan Flint	9.0	188
Macomb County CC	8.5	59
Northwestern Michigan C	8.3	181
Hillsdale C	8.2	73
Baker JC of Business	8.1	160
U of Michigan Ann Arbor	8.1	2,591
Aquinas C	8.0	263
Lake Superior St C	7.1	283
Spring Arbor C	7.0	142
Albion C	6.9	130
Hope C	5.8	226
Alma C	5.6	125
Jackson CC	4.8	62
Calvin C	4.6	347
Michigan Tech U	4.6	701
Grand Rapids Baptist C	4.2	144
GMI Engineering Mgmt Inst	1.7	181
U of Mich Sch of Dentistry	0.0	79

MINNESOTA

Rainy River CC	48.5	33
Pine Tech Inst	43.9	132
Minneapolis CC	37.0	324
Minneapolis Area Voc-Tech Inst	35.8	590
Detroit Lakes Area Voc-Tech Inst	34.6	237
East Grand Forks Area Voc-Tech Inst	33.5	230
Bemidji Area Voc-Tech Inst	28.3	173
Itasca CC	26.2	80
Brainerd Area Voc-Tech Inst	26.0	369
Wadena Tech Inst	25.5	239
Red Wing Voc Tech Inst	25.5	192
St Paul Tech Inst	24.3	460
Austin Area Voc-Tech Inst	23.8	206
916 Area Voc-Tech Inst	23.7	325
Moorhead Tech Inst	23.5	298
Duluth Area Voc-Tech Inst	22.8	439
Jackson Area Voc-Tech Inst	22.1	181
Hibbing CC	22.1	86
Brainerd CC	21.8	87
Willmar CC	21.7	161
Northland CC	21.6	88
Anoka Hennepin Area Voc-Tech Inst	20.1	467
Inver Hills CC	19.3	176
Winona Area Voc-Tech Inst	19.2	167
Worthington CC	19.0	63
St Cloud Area Voc-Tech Inst	18.8	512
Lakewood CC	18.2	176
Metropolitan St U	18.1	149
Minneapolis C of Art Design	18.0	133
Fergus Falls CC	17.7	62
Tech Inst of Hutchinson	17.7	186
Thief River Falls Area Voc-Tech Inst	17.5	229
Eveleth Area Voc-Tech Inst	17.2	180

MINNESOTA—Continued

Rochester CC	17.0%	288
Golden Valley Lutheran C	17.0	106
Faribault Tech Inst	16.9	124
Willmar Area Voc-Tech Inst	16.8	512
Staples Area Voc-Tech Inst	16.8	191
Dakota County Area Voc-Tech Inst	16.4	456
North Central Bible C	15.9	245
Albert Lea Area Voc-Tech Inst	15.7	191
Vermilion CC	15.7	115
Anoka Ramsey CC	15.4	266
Rochester Area Voc-Tech Inst	15.1	251
Pipestone Area Voc Sch	15.1	185
Hennepin Tech Ctrs	14.8	601
U of Minnesota Tech C Crookston	14.4	160
North Hennepin CC	14.2	233
Hibbing Area Voc-Tech Inst	14.0	164
Mesabi CC	13.8	87
Austin CC	13.3	75
St Mary's JC	12.5	248
Concordia C	12.3	155
Mankato Tech Inst	11.9	379
Macalester C	11.7	180
U of Minnesota Morris	11.1	287
NW Electronics Inst	9.6	249
SW Voc-Tech Inst	9.6	156
Canby Area Voc-Tech Inst	9.6	146
Bemidji St U	9.5	621
Hamline U	9.4	384
Dunwoody Industrial Inst	9.2	196
U of Minnesota Twin Cities	8.7	6,248
Augsburg C	8.0	337
NW C of Chiropractic	7.9	151
Winona St C	7.9	660
St John's U	7.8	282
St Cloud St U	7.8	1,604
Moorhead St U	7.8	824
Southwest St U	7.7	298
U of Minnesota Duluth	7.6	1,036
Mankato St U	7.5	1,870
Normandale CC	7.3	301
C of St Catherine	6.1	411
Mayo Fdn Medical Sch	6.1	33
U of Minn Tech C Waseca	6.0	166
Bethel Theol Sem	6.0	50
St Luke's Hospital Sch	5.9	51
Bethany Lutheran C	5.7	35
St Paul Bible C	5.7	141
Northwestern C	5.5	163
St Mary's C	4.6	152
C of St Scholastica	4.3	257
C of St Thomas	4.2	770
C of St Teresa	3.9	76
C of St Benedict	3.6	303
St Olaf C	3.3	430
Bethel C	3.2	374
United Theol Sem	3.0	33
Concordia C Moorhead	2.4	337
Gustavus Adolphus C	1.8	337
Luther NW Theol Sem	1.6	125
Carleton C	1.3	154
Fairview Deaconess Hospital Sch	0.0	35
St Cloud Hospital Sch	0.0	49
Dr Martin Luther C	0.0	60

MISSISSIPPI

Tougaloo C	40.2	97
Rust C	40.0	55
Jones County JC	31.4	118
Mississippi Valley St U	27.3	165
Mary Holmes C	26.9	145
Jackson St U	25.7	561
Hinds JC	20.7	387
Mississippi Gulf Coast JC Jackson	20.5	151
Draugho[illegible]usiness C	20.2	84
Mississippi Gulf Coast JC Jefferson Davis	19.5	200
Alcorn St U	19.2	151
Pearl River JC	18.9	95
William Carey C	17.6	108
Northwest Mississippi JC	16.3	147
Itawamba JC	15.5	219
East Mississippi JC	15.4	78
Mississippi U for Women	13.7	160
Mississippi Delta JC	12.8	47
Northeast Mississippi JC	12.1	165
East Central JC	11.8	34
Belhaven C	10.4	67
Mississippi C	8.8	210
Delta St U	7.9	215
Copiah Lincoln JC	7.7	39
Holmes JC	6.3	32
U of Southern Mississippi	5.7	1,121
U of Mississippi	5.3	642
Mississippi St U	4.9	862
Meridian JC	4.8	83
Millsaps C	3.5	86
Blue Mountain C	2.1	47
U of Miss Medical Ctr	0.9	106

MISSOURI

Tarkio C	78.7	1,154
Penn Valley CC	39.6	338
Three Rivers CC	29.5	44
Harris Stowe St C	29.0	31
Missouri Valley C	26.9	67
Longview CC	25.8	120

MISSOURI—Continued

St Louis CC Forest Park	24.5%	151
Lincoln U	23.3	120
Park C	20.3	118
Crowder C	17.8	118
Mineral Area C	17.5	57
Sikeston Public Schs Area Ctr	17.1	41
Cleveland Chiropractic C	15.1	126
Drury C	14.9	74
O'Fallon Tech Ctr	13.3	45
Rockhurst C	13.3	173
Midwestern Baptist Theol Sem	13.2	53
Avila C	13.0	92
Maryville C	12.3	106
Lindenwood C	11.7	77
Missouri Western St C	11.6	225
State Fair CC	11.1	54
Columbia C	11.0	154
St Mary's C of O'Fallon	10.9	46
St Louis CC Florissant Valley	10.8	93
William Woods C	10.3	39
Southeast Missouri St U	10.2	431
William Jewell C	10.2	98
Missouri Southern St C	9.9	121
Kansas City Art Inst	9.5	63
Webster U	9.5	211
U of Missouri Kansas City	9.3	653
Fontbonne C	8.9	45
St Louis U	8.6	596
U of Missouri St Louis	8.3	327
Central Missouri St U	8.0	503
Jefferson C	7.8	51
Hannibal-LaGrange C	7.7	39
Evangel C	7.3	219
Culver Stockton C	6.8	44
Sch of the Ozarks	6.5	31
U of Missouri Columbia	6.4	1,520
Southwest Baptist U	5.9	186
Nazarene Theol Sem	5.9	85
Central Bible C	5.8	86
Washington U	5.8	674
Ranken Tech Inst	5.8	52
Southwest Missouri St U	5.7	644
Central Methodist C	5.7	35
Concordia Sem	5.4	56
Assemblies of God Theol Sem	5.1	39
U of Missouri Rolla	4.9	410
Baptist Bible C	4.8	83
Northwest Missouri St U	4.6	395
Northeast Missouri St U	4.4	405
Stephens C	4.3	70
St Louis CC Meramec	3.9	76
Logan C of Chiropractic	2.9	136
U of Health Sciences	2.6	78
Graff Area Voc-Tech Sch	0.0	31
Washington U Sch of Medicine	0.0	38

MONTANA

Butte Voc-Tech Ctr	53.3	60
Billings Voc-Tech Ctr	36.3	102
Flathead CC	35.2	54
Missoula Voc-Tech Ctr	32.3	130
Northern Montana C	24.9	261
Great Falls Voc-Tech Ctr	24.1	87
Miles CC	23.8	84
Helena Voc-Tech Ctr	22.4	174
Western Montana C	20.5	78
Eastern Montana C	15.8	379
Rocky Mountain C	15.7	83
C of Great Falls	14.3	77
U of Montana	12.8	870
Montana C of Mineral Science & Tech	9.8	133
Carroll C	8.5	117
Montana St U	7.8	1,152

NEBRASKA

Metropolitan Tech CC	46.7	597
Central CC	45.1	113
York C	32.5	77
Western Nebraska Tech C	29.3	58
Bellevue C	24.8	274
Central Nebraska Tech C	24.2	236
Nebraska Western C	22.8	101
Platt Tech CC	21.2	85
U of Nebraska Omaha	20.8	1,706
Lincoln Nebraska Tech CC	20.1	433
Peru St C	18.7	198
Union C	16.8	173
Grace C of the Bible	15.8	38
Mid Plains CC	15.4	130
Midland Lutheran C	14.2	169
Chadron St C	12.1	231
Northeast Tech CC	11.6	302
C of St Mary	11.3	150
U of Neb Sch of Tech Ag	11.0	82
Dana C	10.8	93
Doane C	10.7	121
Southeast CC Milford	9.9	302
Hastings C	9.7	124
U of Nebraska Lincoln	8.7	3,015
Creighton U	8.6	556
Kearney St C	8.6	993
Bishop Clarkson C	8.0	87
Wayne St C	6.8	398
Nebraska Wesleyan U	6.7	150
Neb Methodist C of Nursing and Allied Health	5.6	71

NEBRASKA—Continued

Concordia Teachers C	5.0%	140
Bryan Memorial Hospital Sch of Nursing	2.4	42
U of Nebraska Med Ctr	2.1	240

NEVADA

Clark County CC	39.2	125
Truckee Meadows CC	38.2	68
U of Nevada Las Vegas	25.8	488
U of Nevada Reno	15.3	483

NEW HAMPSHIRE

Merrimack Valley C	33.3	30
Notre Dame C	17.7	62
Franklin Pierce C	17.3	220
New Hampshire Voc-Tech C Manchester	17.2	58
Hawthorne C	17.1	82
New Hampshire C	15.0	580
New Hampshire Voc-Tech C Claremont	14.7	75
Colby-Sawyer C	12.9	31
New England C	10.6	94
Plymouth St C	10.4	326
New Hampshire Voc-Tech C Stratham	8.9	45
New Hampshire Voc-Tech C Laconia	8.8	57
Franklin Pierce Law Ctr	8.7	46
Daniel Webster C	8.7	69
Keene St C	8.6	315
New Hampshire Tech Inst	7.8	103
New Hampshire Voc-Tech C Berlin	7.3	110
Rivier C	6.8	74
U of New Hampshire	5.1	880
St Anselm C	5.0	101
Dartmouth C	3.5	484

NEW JERSEY

Essex County C	38.2	382
Hudson County CC	31.5	143
Cumberland County C	31.0	116
Mercer County CC	28.8	333
Monmouth Co Voc Sch	28.2	39
Bloomfield C	26.3	156
Gloucester County C	26.1	92
Jersey City St C	24.0	383
Passaic County CC	23.7	139
Cape May County Voc Sch	22.0	41
Salem CC	22.0	41
Upsala C	20.2	272
Union County C	18.7	214
Northeastern Bible C	17.5	40
Burlington County C	17.4	155
Ocean County C	17.2	238
Camden County C	17.1	146
Atlantic CC	16.5	267
Middlesex County C	16.5	419
Fairleigh Dickinson U Hackensack	15.7	70
Elizabeth General Medical Ctr Sch	15.2	33
Rutgers U Newark	14.5	689
Ramapo C of NJ	13.4	352
Centenary C	13.2	129
Brookdale CC	13.1	222
Kean C of NJ	12.7	708
Caldwell C	12.1	66
Bergen CC	11.7	266
St Peter's C	11.6	361
Morris County C	10.8	297
Monmouth C	8.7	391
Rutgers U Camden	8.5	422
Stockton St C	8.5	602
Westminster Choir C	8.5	71
Seton Hall U	8.4	853
Georgian Court C	8.2	170
Glassboro St C	8.0	712
William Paterson C of NJ	7.2	655
Montclair St C	6.3	1,040
Rutgers U main campus	6.0	3,207
Fairleigh Dickinson U Teaneck	6.0	633
Drew U	5.9	254
Somerset County C	5.5	109
Trenton St C	5.4	855
Fairleigh Dickinson U Rutherford	5.3	245
NJ Inst of Tech	5.3	550
Fairleigh Dickinson U Madison	4.6	302
Muhlenberg Regional Hospital Sch	4.4	45
Seton Hall U Sch of Law	4.1	220
C of St Elizabeth	4.0	75
Rider C	3.5	574
St Francis Med Ctr Sch	3.3	30
Mountainside Hospital Sch of Nursing	2.9	34
U of Medicine & Dentistry	2.7	74
C of Medicine & Dentistry	2.6	115
Felician C	2.4	42
Stevens Inst of Tech	1.9	324
Princeton U	1.5	547
Holy Name Hospital Sch of Nursing	0.0	35
Helene Fuld Sch	0.0	35

NEW MEXICO

C of Santa Fe	9.3	97

Continued on Following Page

FACT FILE: Student-Loan Default Rates at More Than 2,600 Institutions—Continued

NEW MEXICO—Continued

St John's C	8.8%	57
New Mexico JC	7.5	67
NM Inst of Mining & Tech	7.0	114
Western New Mexico St	5.4	92
U of Albuquerque	5.2	173
New Mexico Highlands U	4.6	216
E New Mexico U Portales	4.4	316
U of New Mexico	2.0	1,721
New Mexico St U	1.6	924
Albuquerque Tech-Voc Inst	0.5	377
Northern New Mexico CC	0.0	35
E New Mexico U Roswell	0.0	39
San Juan C	0.0	78
Luna Voc-Tech Inst	0.0	85
New Mexico Voc-Tech Inst	0.0	48

NEW YORK

C for Human Services	35.9	64
CUNY Medgar Evers C	34.1	126
CUNY Bronx CC	33.4	404
Mater Dei C	32.4	108
Boricua C	30.4	112
Central Tech High Sch Occupational Ext	30.0	40
Marymount Manhattan C	29.9	241
CUNY Borough of Manhattan CC	28.7	843
Traphagen Sch of Fashion	28.6	35
CUNY John Jay C of Criminal Justice	28.3	530
American Acad McAllister Inst of Funeral Service	28.0	50
CUNY New York City CC	25.8	791
American Acad of Dramatic Arts	25.0	72
SUNY Erie CC City campus	24.9	297
Nassau County Skills Ctr	24.6	65
SUNY Mohawk Valley CC	24.0	828
C of New Rochelle	23.8	749
SUNY Ulster County CC	23.2	164
SUNY Jamestown CC	22.5	387
CUNY Kingsborough CC	21.9	351
SUNY Monroe CC	21.7	779
CC of the Finger Lakes	21.7	346
Mercy C	21.3	879
CUNY La Guardia CC	21.3	315
SUNY Tompkins Cortland CC	21.1	317
Long Island U Brooklyn	21.1	892
SUNY C Old Westbury	20.7	405
St Francis C	20.5	254
Villa Maria C of Buffalo	20.0	105
SUNY Fulton-Montgomery CC	19.9	196
Russell Sage JC of Albany	19.9	171
Onondaga CC	19.9	679
Medaille C	19.8	207
CUNY City C	18.9	684
Columbia U Sch of Arts	18.6	59
CUNY Staten Island CC	18.4	576
SUNY Clinton CC	18.3	131
Elizabeth Seton C	17.8	286
CUNY York C	17.8	225
Elmira C	17.6	182
CUNY Herbert Lehman C	17.6	620
Queensborough CC	17.1	445
Genesee CC	16.8	310
SUNY Orange County CC	16.5	327
SUNY Cayuga County CC	16.1	224
New Sch for Social Research	16.0	511
SUNY Corning CC	16.0	349
Touro C	16.0	257
Mid Westchester Ctr for Practicing Nurses	15.8	38
Jefferson CC	15.8	184
SUNY Westchester CC	15.5	220
Columbia U Sch of General Studies	15.3	241
SUNY Empire St C	15.1	398
SUNY Rockland CC	15.0	494
Albany Business C	14.7	102
C of Aeronautics	14.5	172
Bard C	14.3	98
Parsons Sch of Design	14.2	309
SUNY Adirondack CC	14.2	331
SUNY Columbia-Green CC	14.0	107
Daemen C	13.9	201
Sullivan County CC	13.8	224
CUNY Brooklyn C	13.7	884
Pratt Inst	13.6	513
D'Youville C	13.6	257
Niagara County CC	13.6	287
SUNY Schenectady Co CC	13.3	331
Broome CC	13.2	584
CUNY Grad Sch & U Ctr	12.9	147
SUNY A&T Farmingdale	12.7	599
SUNY Suffolk County CC	12.7	820
SUNY North Country CC	12.3	220
New York Inst of Tech	12.1	1,225
SUNY Dutchess CC	12.1	232
SUNY Nassau CC	11.9	746
Hilbert C	11.8	110
Manhattanville C	11.8	110
Dowling C	11.6	404
CUNY Hunter C	11.6	915
SUNY Erie CC South	11.5	295
Wells C	11.5	61
Fashion Inst of Tech	11.3	608
SUNY Hudson Valley CC	11.2	863
SUNY C Purchase	11.2	312
Bank Street C of Education	11.1	54

NEW YORK—Continued

Pace U	11.1%	1,332
C of Insurance	10.5	57
New York Sch of Interior Design	10.3	39
New Sch of Contemporary Radio	10.0	30
SUNY Herkimer County CC	9.8	265
CUNY Queens C	9.7	868
Union Theol Sem	9.5	42
Oswego Co Boces Adult Ed Program	9.1	33
SUNY A&T C Canton	9.1	452
Maria Regina C	8.8	34
SUNY Erie CC North	8.8	490
Trocaire C	8.6	175
SUNY C Brockport	8.6	1,052
Columbia U Teachers C	8.4	441
Long Island U Southampton	8.4	179
U of Rochester Sch of Music	8.3	36
Wagner C	7.9	202
Polytechnic Inst of NY	7.9	405
Mt St Mary C	7.9	140
New York U	7.8	4,029
Niagara U	7.7	400
Fordham U	7.7	1,486
Our Lady of Victory Secretarial Sch	7.7	39
SUNY C New Paltz	7.5	750
Canisius C	7.4	471
Cazenovia C	7.3	150
Marymount C	7.3	151
Adelphi U	7.1	1,490
Sarah Lawrence C	7.1	99
Columbia U Sch of Architecture	7.0	57
SUNY C Buffalo	7.0	1,264
Columbia U Sch of Journalism	7.0	86
SUNY Buffalo	6.9	2,458
Julliard Sch	6.9	102
Iona C	6.7	555
New York C of Podiatric Medicine	6.7	104
SUNY Stony Brook	6.6	1,401
Columbia U	6.5	31
Long Island C Hospital	6.5	31
SUNY C Fredonia	6.4	639
Utica C	6.3	366
Concordia C	6.3	64
Maria C of Albany	6.2	162
SUNY A&T C Delhi	6.1	461
Syracuse U	5.9	2,203
SUNY C Oneonta	5.7	758
Columbia U Sch of Int'l and Public Affairs	5.7	88
Culinary Inst of America	5.6	485
Kings C	5.6	108
C of Mt St Vincent	5.5	109
U Hospital of Downstate NY	5.5	218
St John's U	5.4	1,802
Dominican C of Blauvelt	5.4	129
SUNY Albany	5.4	1,609
Long Island U CW Post	5.4	1,136
SUNY A&T C Alfred	5.3	804
Colgate Rochester Divinity Sch	5.3	38
St John Fisher C	5.2	291
Pace U White Plains	5.2	288
New York Law Sch	5.1	292
Jewish Theol Sem of America	5.1	39
Albert Einstein C of Med	5.1	99
Crouse-Irving Memorial Hosp Sch of Nursing	4.9	61
C of St Rose	4.9	326
SUNY C Oswego	4.9	1,090
Columbia U Sch of Social Work	4.9	122
Nazareth C of Rochester	4.8	335
Columbia U Grad Sch of Arts and Sciences	4.8	207
Word of Life Bible Inst	4.8	63
Columbia U Columbia C	4.8	291
Roberts Wesleyan C	4.7	85
Russell Sage C	4.7	342
SUNY Binghamton	4.7	1,069
SUNY C Plattsburgh	4.6	854
Hamilton C	4.5	154
SUNY A&T C Morrisville	4.5	577
US Merchant Marine Acad	4.4	45
Friends World C	4.4	45
Marist C	4.4	344
SUNY A&T C Cobleskill	4.3	422
Hofstra U	4.3	1,292
Lewis A Wilson Tech Ctr	4.2	48
SUNY C of Environmental Science and Forestry	4.2	264
Hobart & William Smith C's	4.1	171
Yeshiva U	4.0	99
New York Chiropractic C	4.0	150
Paul Smith's C of Arts and Sciences	4.0	201
Nyack C	4.0	101
SUNY C of Ag Cornell U	4.0	126
SUNY C Cortland	3.9	902
LeMoyne C	3.8	314
SUNY C Potsdam	3.8	527
Yeshiva U Brookdale	3.8	186
Manhattan C	3.7	487
Columbia U Sch of Business	3.7	266
New York Medical C	3.6	137

NEW YORK—Continued

Rochester Inst of Tech	3.6%	1,548
Manhattan Sch of Music	3.6	83
Hartwick C	3.5	142
Keuka C	3.4	58
Vassar C	3.4	237
Cornell U Endowed C's	3.3	1,617
Columbia U Sch of Law	3.3	179
St Joseph's C	3.3	183
St Thomas Aquinas C	3.3	183
Beth Israel Medical Ctr	3.2	31
Rabbinical Sem of America	3.2	155
Broome-Delaware-Tioga Boces Program	3.1	32
Cope Inst	3.1	32
Skidmore C	3.1	160
SUNY C Geneseo	3.1	652
Ithaca C	3.0	636
Houghton C	3.0	168
CUNY Mt Sinai Sch of Med	2.9	68
Barnard C	2.8	181
New York U Sch of Med	2.7	73
Alfred U	2.7	220
Helene Fuld Sch of Nursing	2.7	75
Brooklyn Law Sch	2.6	265
Yeshiva U Midtown Ctr	2.6	38
U of Rochester	2.6	691
Columbia U Sch of Public Health	2.6	78
Otesgo Area Sch of Practical Nursing	2.4	41
Columbia U Sch of Library Services	2.4	42
SUNY C of Tech Utica	2.4	330
St Lawrence U	2.3	216
Molloy C	2.0	147
SUNY Maritime C	1.9	154
Pace U Pleasantville	1.8	438
Columbia U Sch of Dentistry	1.8	56
Colgate U	1.7	236
Rensselaer Polytech Inst	1.7	591
Clarkson U	1.6	631
Columbia U Sch of Engineering	1.6	187
U Hospital of Upstate NY	1.6	128
St Bonaventure U	1.5	341
Columbia U C of Physicians	1.5	68
Cooper Union	1.3	75
Siena C	1.2	404
Albany C of Pharmacy	1.2	83
Union C	0.9	232
St Vincent's Hospital Sch	0.0	47
SUNY C of Optometry	0.0	48
Albany Medical C	0.0	53
Derech Ayson Rabbinical Sem	0.0	67
SUNY C of Ceramics at Alfred U	0.0	78
Albany Law Sch	0.0	152
Columbia U Sch of Nursing	0.0	83
Yeshiva U Bronx Ctr	0.0	32

NORTH CAROLINA

St Augustine's C	55.1	247
Livingstone C	42.9	70
Johnson C Smith U	39.9	163
Wilson County Tech C	39.2	51
Barber-Scotia C	36.0	100
Bennett C	30.0	70
Fayetteville St U	29.1	79
Roanoke-Chowan CC	29.0	31
Wayne CC	25.0	36
Winston Salem St U	24.5	143
North Carolina Central U	23.1	403
Southwestern Tech C	22.9	48
Shaw U	22.7	44
Elizabeth City St U	22.6	106
Chowan C	21.2	137
Alamance CC	20.4	49
Forsyth Tech Inst	18.4	38
NC Sch of the Arts	18.2	44
NC A&T St U	17.7	418
Sampson Tech Inst	16.7	30
Pitt CC	16.7	48
Louisburg C	15.6	45
Greensboro C	14.9	47
Cape Fear CC	14.6	41
Catawba C	12.7	79
Pembroke St U	12.4	89
Guilford Tech CC	12.2	74
Coastal Carolina CC	11.4	44
Methodist C	11.0	100
Western Piedmont CC	10.7	56
Belmont Abbey C	10.5	76
East Coast Bible C	10.0	40
North Carolina Wesleyan C	9.8	92
Haywood Tech C	9.7	31
Central Piedmont CC	9.6	104
Pfeiffer C	9.5	74
High Point C	8.0	87
Queens C	7.9	38
U of NC Asheville	7.6	79
St Andrews Presbyterian C	7.5	93
Campbell U	7.3	260
Western Carolina U	6.9	391
Guilford C	6.4	109
Warren Wilson C	6.4	47
Atlantic Christian C	6.4	141
U of NC Greensboro	5.5	541
U of NC Charlotte	4.9	597
Asheville Buncombe Tech CC	4.7	43
U of NC Wilmington	4.2	337

NORTH CAROLINA—Continued

Elon C	4.1%	171
North Carolina St U	3.2	1,218
Appalachian St U	3.2	601
U of NC Chapel Hill	3.1	1,195
Sandhills CC	3.0	33
Mars Hill C	2.9	104
Duke U	2.8	781
Wingate C	2.8	145
East Carolina U	2.5	712
Randolph CC	2.5	40
Salem C	2.1	48
Wake Tech C	2.1	96
Gardner-Webb C	2.1	97
Davidson C	2.0	50
Lenoir-Rhyne C	2.0	151
Wake Forest U	1.5	271
Bowman Gray Sch of Med	0.0	44
Meredith C	0.0	84

NORTH DAKOTA

Standing Rock C	57.4	47
U of ND Williston	30.6	49
Trinity Bible C	17.0	106
Bismarck St C	14.7	163
Mayville St U	12.3	57
ND St C of Science	10.5	344
Dickinson St U	9.5	84
Valley City St C	9.0	67
Minot St U	8.8	159
Jamestown C	8.1	62
U of Mary	6.9	101
U of ND Lake Region	6.1	33
ND St U main campus	5.8	872
U of North Dakota	5.8	1,164
St Lukes Hospital Sch	2.9	34

OHIO

Wilberforce U	53.8	249
Lawrence Co Joint Voc Sch	52.9	34
Central St U	35.3	278
Dyke C	34.2	73
Cuyahoga CC	33.8	287
Washington Tech C	27.8	54
Ashtabula County Joint Voc Sch	26.5	34
Union for Experimenting C's and U's	23.6	127
Clark Tech C	18.4	49
Muskingum Area Tech C	17.1	35
Lorain County CC	16.7	114
Rio Grande C	16.0	94
Antioch C	13.9	634
ATES Tech Inst	13.7	51
Circleville Bible C	13.3	45
Belmont Tech C	13.2	53
Hocking Tech C	12.8	141
Northwest Tech C	12.5	32
Edison St CC	11.1	36
Bluffton C	11.1	63
Mount Union C	11.1	108
Lima Tech C	11.0	82
Jefferson Tech C	10.5	38
Sinclair CC	10.4	135
Heidelberg C	10.1	69
Central Ohio Tech C	10.0	40
Ohio Dominican C	9.7	72
Otterbein C	9.7	103
Franklin U	9.3	161
Shawnee St CC	9.1	33
Cincinnati Bible Sem	9.0	67
North Central Tech C	8.6	70
Owens Tech C	8.5	129
Hiram C	8.4	95
Cleveland Inst of Art	8.0	50
Lakeland CC	7.7	39
Ashland C	7.6	211
Defiance C	7.3	96
Youngstown St U	7.2	473
Xavier U	7.0	229
NW Business C Tech Ctr	6.9	216
Ohio C of Podiatric Med	6.8	88
Ohio U	6.7	1,048
Ursuline C	6.7	30
Columbus Tech Inst	6.4	203
Terra Tech C	5.9	34
Wright St U	5.9	527
Oberlin C	5.7	262
Stark Tech C	5.7	53
Wilmington C	5.4	56
Columbus C of Art and Design	5.4	112
Ohio Northern U	5.3	244
Mount Vernon Nazarene C	4.9	143
C of Mount St Joseph	4.7	85
Capital U	4.7	213
U of Cincinnati main campus	4.7	963
Baldwin-Wallace C	4.6	196
Kent St U main campus	4.6	1,228
Kent St U Trumbull	4.5	44
Walsh C	4.5	44
Findlay C	4.5	110
Denison U	4.5	178
C of Wooster	4.3	139
Kenyon C	4.2	95
U of Dayton	4.2	621
Cleveland St U	4.1	465
Wittenberg U	4.0	149
U of Akron	3.9	836
Ohio St U	3.9	2,491
Cincinnati Tech C	3.8	78
Malone C	3.5	57

OHIO—Continued

Southern St CC	3.2%	31
Cedarville C	3.2	186
Case Western Reserve U	3.1	458
Kent St U Stark	3.0	33
Miami U	3.0	1,090
Marietta C	3.0	133
Bowling Green St U	2.9	1,109
U of Toledo	2.9	807
Lake Erie C	1.9	54
U of Steubenville	1.9	108
Northeastern Ohio U's C of Medicine	1.8	57
Ohio Wesleyan U	1.6	125
U of Cincinnati Med C	0.9	117
John Carroll U	0.6	174
Kettering C of Medical Arts	0.0	37
Muskingum C	0.0	92

OKLAHOMA

Rogers St C	74.2	120
Flaming Rainbow U	72.7	33
Seminole JC	70.8	48
Rose St C	69.9	93
Connors St C	69.6	46
Oklahoma City CC	62.7	75
Bacone C	60.0	35
Western Oklahoma St C	58.1	31
Gordon Cooper Area Voc Sch	57.9	57
Northeastern Okla A&M C	56.6	76
Carl Albert JC	55.9	34
Langston U	53.6	69
Tulsa County Area Voc Sch	52.6	38
Eastern Oklahoma St C	51.5	33
Indian Meridian Area Voc Sch	51.5	33
Central St U	49.2	258
Northeastern St U	49.1	452
U of Sci & Arts of Okla	49.1	53
Tri County Area Voc Sch	49.0	51
El Reno JC	47.4	38
Western Okla Area Voc Sch	46.7	30
Northern Oklahoma C	45.7	70
Kiamichi Area Voc Sch	42.2	64
Murray St C	40.0	55
Oklahoma St U Okmulgee	39.4	216
Cameron U	31.0	129
Oklahoma Panhandle St U	30.8	52
Southeastern Okla St U	30.7	215
U of Oklahoma Norman	28.5	775
Mid-America Bible C	28.3	46
Phillips U	22.5	71
U of Tulsa	22.1	290
Southern Nazarene U	21.9	169
Southwestern Okla St U	18.1	265
Oklahoma Christian C	17.1	210
East Central U	15.7	121
Oklahoma Baptist U	15.2	66
Northwestern St U	14.9	74
Oklahoma St U	12.0	1,003
Oral Roberts U	12.0	577
Bartlesville Wesleyan C	11.3	71
U of Okla Health Sci Ctr	7.8	192

OREGON

Eastern Oregon St C	38.0	192
Oregon Polytechnic Inst	38.0	179
Rogue CC	34.4	96
Blue Mountain CC	25.0	72
Linn Benton CC	23.6	208
Marylhurst C for Lifelong Learning	23.5	81
Lane CC	22.0	404
Chemeketa CC	21.3	207
Clackamas CC	18.9	95
ITT Tech Inst	18.2	1,166
Clatsop CC	16.7	42
Mount Hood CC	16.4	128
Pacific Northwest C of Art	16.2	37
Portland CC	15.8	303
Umpqua CC	14.9	87
Concordia C	13.2	38
Eugene Bible C	11.6	43
Southern Oregon St C	9.8	410
Columbia Christian C	9.5	42
Portland St U	8.6	767
Western Oregon St C	8.6	279
U of Oregon	7.6	1,416
Warner Pacific C	7.3	41
Western Sts Chiropractic C	7.1	70
Linfield C	6.7	180
U of Portland	6.6	212
Oregon Inst of Tech	6.5	246
Oregon St U	6.5	1,393
Lewis and Clark C Sch of Law	6.5	107
Central Oregon CC	6.0	50
Pacific U	5.7	88
Western Baptist C	5.3	38
Willamette U	5.2	211
Lewis & Clark C	3.4	174
George Fox C	1.9	103
Good Samaritan Hospital Sch	1.5	66
Oregon Health Sciences U	1.3	75
Reed C	1.1	87
Western Conservative Baptist Sem	0.0	38

PENNSYLVANIA

Cheyney U of Pa	45.8	330

PENNSYLVANIA—Continued

CC of Philadelphia	40.1%	901
Lincoln U	35.2	213
Peirce JC	30.3	380
Orleans Tech Inst	28.7	80
Pennsylvania Inst of Tech	28.7	136
Northeastern Christian JC	27.3	44
Northeast Inst of Education	26.1	69
CC of Allegheny County	24.8	1,529
Altoona Area Voc-Tech Sch	22.0	41
Delaware County CC	21.2	405
Greater Johnstown Area Voc-Tech Sch	20.5	161
CC of Beaver County	19.9	297
Point Park C	18.2	275
James Martin Sch Adult Voc-Tech Ctr	17.9	39
Bucks County CC	17.7	293
Methodist Hospital Sch	17.6	34
Harrisburg Area CC	16.7	239
Restaurant Sch	16.5	97
Luzerne County CC	16.3	355
York County Area Voc-Tech Sch	16.3	43
Mercer County Area Voc-Tech Sch	16.3	43
Westmoreland County CC	15.8	462
Temple U	15.1	3,121
Chestnut Hill C	14.4	111
Philadelphia C of Art	13.8	218
Montgomery County CC	13.8	269
Reading Area CC	13.5	141
Rosedale Tecn Inst	13.3	135
Philadelphia C of Textiles	12.7	338
Pa Acad of Fine Arts	12.2	41
Eastern C	12.1	99
Waynesburg C	11.8	187
Lackawanna JC	10.8	157
U of Pittsburgh Bradford	10.8	111
Mercyhurst C	10.4	173
U of Pittsburgh Greensburg	10.2	147
California U of Pa	10.1	713
Westminster Theol Sem	10.0	30
Spring Garden C	9.9	182
Butler County CC	9.8	163
Temple U Sch of Arts	9.8	71
St Francis C	9.7	227
Albert Einstein Med Ctr	9.7	62
Harcum JC	9.6	198
Northampton Co Area CC	9.6	209
Delaware Valley C of Science and Ag	9.2	217
Williamsport Area CC	9.1	1,017
Carlow C	8.9	179
Manor JC	8.9	90
Sharon General Hosp Sch	8.8	34
Beaver C	8.7	219
La Salle U	8.7	876
Thiel C	8.6	186
La Roche C	8.6	163
Cabrini C	8.5	129
Pittsburgh Inst of Aeronautics	8.5	165
Mt Aloysius JC	8.5	177
Eastern Baptist Theol Sem	8.3	36
Holy Family C	8.2	146
Temple U Ambler	8.2	376
Saint Joseph's U	8.2	552
Johnson Tech Inst	8.1	99
Edinboro U of Pa	7.9	745
Philadelphia C of Bible	7.6	79
Neumann C	7.5	106
Washington and Jefferson C	7.4	136
Geneva C	7.3	205
Robert Morris C	7.3	890
Lehigh County CC	7.3	137
Moore C of Art	7.3	96
Slippery Rock U	7.1	860
Frankford Hospital Sch	6.9	72
East Stroudsburg U of Pa	6.8	636
Indiana U of Pa	6.7	2,119
Gwynedd-Mercy C	6.7	193
St Francis Hospital Sch	6.7	30
Valley Forge Christian C	6.7	90
U of Pittsburgh Johnstown	6.5	278
Keystone JC	6.4	171
Lancaster Bible C	6.4	47
Allegheny C	6.4	204
Chatham C	6.3	80
Lankenau Hospital Sch of Nursing	6.1	33
U of Pittsburgh main campus	6.1	3,467
Lock Haven U of Pa	6.0	466
Duquesne U	5.9	968
Gannon U	5.9	392
Wilkes C	5.8	344
Mercy Hospital Sch of Nursing	5.8	69
West Chester U of Pa	5.8	1,094
Danville Area Sch Dist	5.7	53
Millersville U of Pa	5.7	972
Hahnemann U	5.6	443
York C	5.6	518
United Wesleyan C	5.6	36
Alvernia C	5.6	108
Pittsburgh Inst of Mortuary Science	5.3	38
Widener U	5.2	654
Reading Hospital Sch	5.1	39
Immaculata C	5.0	101
Thomas Jefferson U	4.9	61
Drexel U	4.9	1,403
Haverford C	4.9%	82
Pa St U main campus	4.8	7,994
Marywood C	4.8	398
C Misericordia	4.7	214
Westminster C	4.5	178
Mansfield U of Pa	4.4	519
U of Pennsylvania	4.3	2,275
Kutztown U of Pa	4.2	756
Clarion U of Pa	4.2	640
Swarthmore C	4.2	119
Seton Hill C	4.1	123
St Vincent C	4.0	151
King's C	3.9	358
Electronic Inst	3.9	77
St Francis Medical Ctr	3.8	52
Dickinson Sch of Law	3.6	111
Carnegie Mellon U	3.6	865
Dickinson C	3.5	227
Susquehanna U	3.3	239
Thomas Jefferson U	3.3	269
Pa St U Harrisburg	3.3	30
Allentown C St Francis de Sales	3.3	180
U of Scranton	3.2	526
Muhlenberg C	3.2	156
Bryn Mawr C	3.1	192
Franklin and Marshall C	3.1	192
Villanova U	3.1	1,187
Washington Hospital Sch	3.0	33
Shippensburg U of Pa	3.0	797
Cedar Crest C	3.0	133
Pittsburgh Theol Sem	2.9	34
Altoona Hospital Sch of Nursing	2.9	34
Bryn Mawr Hospital Sch	2.9	35
Baptist Bible C of Pa	2.9	140
Juniata C	2.9	175
Lycoming C	2.8	178
Albright C	2.7	219
Bloomsburg U of Pa	2.6	890
Elizabethtown C	2.5	239
Conemaugh Valley Memorial Hospital Sch	2.4	41
Moravian C	2.4	206
Philadelphia C of Pharmacy and Science	2.2	134
Philadelphia C of Osteopathic Med	1.9	160
Pa C of Optometry	1.9	108
Medical C of Pa	1.8	110
Temple U Pharmacy Sch	1.8	112
Lebanon Valley C	1.7	115
Pa C of Podiatric Med	1.6	62
Thaddeus Stevens St Sch of Tech	1.5	65
Bucknell U	1.5	334
Geisinger Med Ctr Sch	1.5	67
Messiah C	1.5	268
Lehigh U	1.4	625
Rosemont C	1.4	71
Villa Maria C	1.4	74
Ursinus C	1.1	181
Grove City C	1.0	296
Gettysburg C	1.0	200
Lafayette C	0.4	240
Robert Packer Hospital Sch of Nursing	0.0	33
Wilson C	0.0	34
Lancaster General Hospital Sch	0.0	36
St Luke's Hospital Sch of Nursing	0.0	40
Allentown Hospital Sch	0.0	41
Shadyside Hospital Sch	0.0	43
Milton S Hershey Med Ctr	0.0	82

PUERTO RICO

Bayamon Central U	14.6	41
Inter American U of PR San German	12.3	310
Antillian C	11.5	96
Caribbean Ctr for Advanced Studies	11.1	54
Puerto Rico JC	11.1	452
U of Sacred Heart C	10.5	172
U del Turabo C	10.1	197
U Central Del Caribe	9.7	31
Inter American U of PR Metropolitan	7.4	876
U of Puerto Rico Humacao	6.3	57
U of PR Arecibo	5.7	53
Catholic U of Puerto Rico	5.5	293
Caribbean U C	5.2	96
American C of Puerto Rico	5.1	176
Inter American U of PR Bayamon U C	4.7	43
U Polytech of Puerto Rico	4.6	65
U of Puerto Rico San Juan	4.3	375
U of Puerto Rico Mayaguez	2.2	45
U of PR Med Sciences	1.1	184

RHODE ISLAND

New England Inst of Tech	39.7	73
Rhode Island C	25.0	52
Roger Williams C	12.9	132
U of Rhode Island	9.4	339
Johnson & Wales C	8.5	597
Rhode Island Sch of Design	5.0	141
Brown U	3.9	427
Salve Regina C	3.7	80
Providence C	3.3	183
Bryant C of Business	1.7	176

SOUTH CAROLINA

Voorhees C	57.3%	103
Allen U	50.0	44
Morris C	46.8	111
Claflin C	46.2	39
Denmark Tech C	44.2	52
Benedict C	43.5	370
Baptist C Charleston	37.0	308
Sumter Area Tech C	30.6	98
Greenville Tech C	29.9	157
Midlands Tech C	27.4	157
U of South Carolina Sumter	26.7	45
Piedmont Tech C	22.2	54
Florence Darlington Tech C	22.0	41
U of SC Coastal Carolina	21.1	232
Spartanburg Tech C	19.6	46
U of SC Spartanburg	18.2	154
Anderson C	18.1	127
Limestone C	17.8	118
Spartanburg Methodist C	17.6	51
Horry-Georgetown Tech C	16.7	42
Trident Tech C	14.8	108
Columbia C	14.0	107
U of South Carolina Aiken	13.3	90
Coker C	13.2	38
South Carolina St C	13.1	252
Erskine C	11.8	34
U of SC Columbia	11.7	1,914
Columbia Bible C	10.7	84
Lander C	10.0	211
Newberry C	9.5	63
Central Wesleyan C	8.9	56
North Greenville C	8.8	34
Winthrop C	8.8	331
C of Charleston	8.7	311
Sherman C of Straight Chiropractic	7.7	78
Citadel	7.3	150
Francis Marion C	7.2	152
Tri-County Tech C	6.8	44
Wofford C	6.6	61
Converse C	5.2	58
Furman U	4.9	142
Clemson U	4.6	910
Presbyterian C	3.5	57
Medical U of SC	2.7	148

SOUTH DAKOTA

Sisseton-Wahpeton CC	61.0	77
Sinte Gleska C	41.7	115
Huron C	18.6	118
Mitchell Area Voc-Tech Sch	16.1	279
Western Dakota Voc-Tech Inst	13.4	149
Kilian CC	13.0	54
Southeast Area Sch of Practical Nursing	12.3	146
Dakota Wesleyan U	9.6	166
Black Hills St C	7.4	570
Presentation C	6.7	90
Mount Marty C	5.0	119
Lake Area Voc-Tech Inst	4.7	408
Sioux Falls C	4.1	147
Dakota St C	3.8	263
U of South Dakota	3.2	1,131
Northern St C	2.6	616
South Dakota St U	2.5	1,220
Augustana C	2.2	364
South Dakota Sch of Mines & Tech	1.6	366

TENNESSEE

Rutledge C	73.7	167
Lane C	58.3	156
American Inst of Tech	57.7	196
Memphis St Area Voc-Tech Sch	55.5	155
Knoxville C	53.9	76
McKenzie C	52.0	223
Shelby St CC	50.9	422
Le Moyne-Owen C	45.0	240
St Tech Inst of Memphis	42.0	338
Jacksboro St Area Voc-Tech Sch	40.9	44
Tennessee St U	33.4	631
Lincoln Memorial U	31.0	116
St Area Voc-Tech Sch Knoxville	30.2	53
St Tech Inst of Knoxville	30.0	140
St Area Voc-Tech Sch Crossville	29.0	31
Bethel C	28.6	56
Chattanooga St Tech CC	25.8	132
St Area Voc-Tech Sch Paris	25.7	35
Jackson St CC	20.8	53
Meharry Medical C	20.5	88
Tusculum C	20.3	64
Tomlinson C	19.0	58
Christian Brothers C	18.2	99
Roane St CC	17.2	87
Cleveland St CC	16.7	48
Nashville St Tech Inst	16.0	187
Walters St CC	15.2	33
U of Tenn Chattanooga	14.8	311
Memphis St U	14.8	927
Tri-Cities St Tech Inst	14.7	34
Dyersburg St CC	14.3	35
Austin Peay St U	14.3	231
Lee C	13.7	146
Volunteer St CC	13.6	44
Trevecca Nazarene C	13.2	190
Fisk U	11.8	68
Southern C of Seventh-Day Adventists	11.3%	222
Johnson Bible C	10.5	38
King C	9.7	31
Lambuth C	9.4	53
Hiwassee C	9.4	32
Motlow St CC	7.7	39
East Tennessee St U	7.6	512
Tennessee Wesleyan C	7.0	43
U of the South	6.9	58
Tennessee Temple C	6.9	218
Bryan C	6.7	30
U of Tennessee Martin	6.6	244
U of Tennessee Knoxville	6.4	1,383
Rhodes C	6.3	32
Maryville C	5.9	34
Belmont C	5.8	121
Carson Newman C	5.3	113
Methodist Hospital Sch of Nursing	5.3	38
Freed-Hardeman C	5.2	155
David Lipscomb C	5.1	136
Milligan C	5.1	59
Middle Tennessee St U	4.8	832
Union U	4.3	92
Covenant C	4.3	70
Columbia St CC	4.2	48
Vanderbilt U	3.8	557
Tennessee Tech U	2.9	380
Southern C of Optometry	1.4	71
U of Tennessee Memphis	0.0	41

TEXAS

Hill JC	55.6	72
Texas St Tech Inst Amarillo	52.7	364
Paul Quinn C	51.5	33
Bishop C	48.8	205
Navarro C	47.1	85
Victoria C	45.9	61
El Centro C	45.1	182
Frank Phillips C	44.9	49
Paris JC	44.7	132
Ranger JC	44.3	106
Brazosport JC	44.3	61
Commonwealth C of Funeral Service	44.2	43
Texas Southern U	44.0	777
Galveston C	43.9	57
Angelina C	42.0	88
Bee County C	41.5	200
Wharton County JC	41.1	124
Tyler JC	41.1	129
Odessa C	40.8	71
Texas C	40.2	127
Cisco JC	39.6	106
Texas Southmost C	39.4	165
Grayson County C	39.1	46
Central Texas C	39.1	399
U of Houston Downtown	38.6	280
South Plains C	38.3	230
North Lake C	37.8	45
Trinity Valley CC	37.7	77
Clarendon C	35.4	48
Southwestern Christian C	34.4	32
San Antonio Training Division	33.8	65
Texas St Tech Inst Sweetwater	33.3	78
Prairie View A&M U	33.1	326
Wiley C	32.8	67
McLennan CC	32.8	198
North Harris County C	32.7	153
Amarillo C	32.5	246
Houston CC	32.3	223
Wayland Baptist U	31.9	188
Jarvis Christian C	31.8	129
St Philip's C	31.5	168
Austin CC	31.5	527
Lon Morris C	30.3	33
Alvin CC	30.2	96
Vernon Regional JC	29.9	67
El Paso CC	29.5	156
Tarrant County JC	28.4	306
Texas St Tech Inst Harlingen	28.2	465
Temple JC	28.0	93
San Antonio C	27.9	591
Texas St Tech Inst Waco	27.9	560
San Jacinto C	27.4	197
Texarkana C	26.8	41
Del Mar C	26.6	244
Cedar Valley C	26.5	34
Schreiner C	25.4	58
Cooke County C	25.0	48
Richland C	24.6	130
Houston Baptist U	24.3	181
Mountain View C	24.1	58
Eastfield C	24.0	50
Dallas Inst of Funeral Service	23.7	59
Lamar U main campus	23.4	449
Huston-Tillotson C	23.1	147
Arlington Baptist C	22.0	50
Dallas Baptist C	21.9	128
Blinn C	21.6	51
Western Texas C	21.3	47
Brookhaven C	21.0	81
McMurry C	20.9	206
Lubbock Christian C	20.6	141
Southwestern Adventist C	20.2	168
Southwest Texas JC	19.8	81
East Texas St U	19.3	509
Laredo St U	18.9	37
Laredo JC	18.6%	43
Sam Houston St U	17.9	719
Texas Wesleyan C	17.8	129
U of Houston U Park	17.8	1,632
SW Assemblies of God C	17.7	124
Sul Ross St U	17.7	232
Tarleton St U	17.0	359
Howard County JC	16.9	59
U of Houston Victoria	16.7	36
Incarnate Word C	16.6	163
Pan American U	16.5	1,062
St Edwards U	16.3	283
Midwestern St U	15.8	203
Texas A&I U	15.6	672
Texas Lutheran C	15.2	164
Texas A&M U Engineering Extension	15.2	59
U of Mary Hardin Baylor	15.0	167
U of Texas Arlington	14.9	1,184
Concordia Lutheran C	14.8	54
North Texas St U	14.5	1,041
Austin C	14.3	105
U of Texas El Paso	14.1	531
American Tech U	14.1	71
West Texas St U	13.1	360
St Mary's U of San Antonio	13.0	476
U of Texas San Antonio	12.7	735
U of Houston Clear Lake	12.4	185
Angelo St U	12.1	347
Southwest Texas St U	11.9	1,443
Texas Tech U	11.9	1,610
Howard Payne U	11.4	44
U of Texas Tyler	11.4	176
Stephen F Austin St U	11.1	576
Our Lady of the Lake U	11.0	181
Texas Woman's U	10.6	445
East Texas Baptist U	9.8	92
Le Tourneau C	9.6	125
U of St Thomas	9.5	147
Corpus Christi St U	9.3	161
Texas A&M U Galveston	9.3	54
Texas Chiropractic C	9.0	111
Abilene Christian U	9.0	580
Texas Christian U	8.3	411
Hardin-Simmons U	8.1	210
Rice U	7.9	280
U of Texas Dallas	7.8	232
U of Dallas	7.0	158
Trinity U	6.9	202
Southern Methodist U	6.9	595
Texas C of Osteopathic Medicine	6.7	75
U of Texas Austin	6.7	3,262
South Texas C of Law	5.4	224
Baylor U	5.0	762
Baylor C of Medicine	4.9	121
Methodist Hosp Sch of Nursing	4.8	42
Texas Tech U Health Sci Ctr	4.8	62
U of Texas Permian Basin	4.7	43
Texas A&M U	4.4	2,632
U of Texas Med Branch Galveston	4.2	190
U of Texas Health Science Ctr San Antonio	3.9	281
SW Baptist Theol Sem	2.5	80
U of Texas Health Science Ctr Houston	2.0	348
Baylor C of Dentistry	1.8	110
U of Texas SW Med Ctr Dallas	1.5	133
Southwestern U	1.0	96

UTAH

Dixie C	11.4	70
Southern Utah St C	7.3	247
C of Eastern Utah	5.6	72
Weber St C	5.2	554
Utah Valley CC	3.6	249
Salt Lake CC	3.6	277
Latter-Day Saints Business C	2.3	44
Westminster C of Salt Lake City	2.2	135
Snow C	2.1	48
Utah St U	1.6	671
Brigham Young U	1.3	1,937
U of Utah	1.0	1,334
Sevier Valley Tech Ctr	0.0	31

VERMONT

CC of Vermont	18.5	81
Southern Vermont C	15.3	59
C of St Joseph	12.8	39
Vermont C	12.2	74
Sch for Int'l Training	11.9	67
Norwich U	8.3	205
Castleton St C	8.2	257
Bennington C	8.1	62
Johnson St C	7.5	159
Woodbury C	7.1	42
Lyndon St C	5.7	158
Champlain C	4.9	466
Goddard C	4.8	42
Middlebury C	3.1	226
St Michael's C	3.0	169
Vermont Tech C	2.7	147
U of Vermont	2.5	932
Trinity C	1.0	101
Vermont Law Sch	0.0	58

Continued on Following Page

FACT FILE: Student-Loan Default Rates at More Than 2,600 Institutions

VIRGINIA

Virginia Union U	31.1%	196
St Paul's C	28.6	49
Virginia St U	18.2	417
Norfolk St U	14.6	336
Hampton U	14.0	386
Sweet Briar C	9.4	32
Averett C	8.3	60
Shenandoah C & Conservatory of Music	8.3	84
Hollins C	7.9	63
Virginia Military Inst	7.9	63
Virginia Intermont C	7.1	42
Tidewater CC	6.7	104
Liberty U	6.0	487
Hampden-Sydney C	5.7	35
Mary Baldwin C	4.9	41
Thomas Nelson CC	4.3	115
Washington & Lee U	4.3	117
Virginia Western CC	3.9	51
Northern Virginia CC	3.9	180
Marymount U	3.8	106
Lynchburg C	3.6	140
Ferrum C	3.1	129
Randolph-Macon Woman's C	2.7	37
Radford U	2.7	338
Old Dominion U	2.6	656
Roanoke C	2.5	118
U of Virginia	2.5	915
National Education Ctr	2.5	684
Virginia Wesleyan C	2.2	90
C of William and Mary	2.1	334
James Madison U	2.1	527
Randolph-Macon C	2.1	48
Mary Washington C	2.0	101
John Tyler CC	2.0	51
Virginia Commonwealth U	1.8	840
Bridgewater C	1.6	64
George Mason U	1.5	463
U of Richmond	1.2	248
Christopher Newport C	0.9	108
Longwood C	0.7	135
Va Polytech Inst and St U	0.6	1,219
Emory & Henry C	0.0	45
Eastern Mennonite C	0.0	86

VIRGINIA—Continued

J Sargeant Reynolds CC	0.0%	159
Va Commonwealth U Medical C	0.0	80

WASHINGTON

Seattle Opportunities Industrialization Ctr	59.5	708
Heritage C	31.3	32
Clark CC	31.1	196
Art Inst of Seattle	30.6	111
Spokane Falls CC	28.6	206
South Seattle CC	26.2	122
Grays Harbor CC	26.1	46
Big Bend CC	25.0	72
Renton Voc-Tech Inst	24.4	131
Yakima Valley CC	23.7	118
Peninsula C	23.3	30
Columbia Basin C	22.0	100
Tacoma CC	21.5	93
Spokane CC	20.7	324
Whatcom CC	20.0	65
Everett CC	19.5	77
Wenatchee Valley C	19.4	103
Lower Columbia C	19.0	79
Pierce C	18.7	75
Cascade Business C	18.7	75
South Puget Sound CC	18.5	65
Walla Walla CC	17.6	91
Cornish Inst	17.1	76
Evergreen St C	16.2	216
Highline CC	15.7	159
North Seattle CC	15.4	104
Edmonds CC	14.7	75
Skagit Valley C	14.5	69
Bellevue CC	14.5	76
LH Bates Voc-Tech C	14.3	42
Bellingham Voc-Tech C	13.7	95
Clover Park Voc-Tech C	13.1	198
Eastern Washington U	11.3	610
Lake Washington Voc-Tech C	11.3	71
Shoreline CC	10.9	119
Northwest C of the Assemblies of God	10.5	76

WASHINGTON—Continued

Gonzaga U	9.8%	346
Olympic CC	9.8	41
Walla Walla C	8.5	201
Washington St U	7.9	1,085
Whitman C	7.9	127
Whitworth C	7.7	208
Seattle U	7.5	426
Perry Tech Inst	7.2	83
Seattle Pacific U	7.1	294
Western Washington U	6.8	629
Central Washington U	6.6	534
Green River CC	6.5	62
U of Puget Sound	5.6	539
U of Washington	5.3	1,870
Pacific Lutheran U	5.0	360
St Martin's C	4.6	65
City U	3.6	83
Lutheran Bible Inst	3.3	30

WEST VIRGINIA

West Virginia Northern CC	39.8	244
Garnet Career Ctr	38.5	65
West Virginia St C	33.7	395
Beckley C	32.8	122
Southern West Virginia CC	32.0	50
Bluefield St C	27.9	287
Parkersburg CC	27.5	189
Raleigh Co Voc-Tech Ctr	24.3	37
Salem C	24.1	216
Davis & Elkins C	23.3	215
Marshall U	22.9	1,146
W Va C of Grad Studies	22.8	79
Ohio Valley C	20.0	45
Glenville St C	19.8	283
James Rumsey Voc-Tech Ctr	19.2	78
W Va Inst of Tech	17.6	391
Concord C	16.7	287
U of Charleston	15.7	198
Fairmont St C	14.9	643
Alderson Broaddus C	14.8	135
Potomac St C of W Va U	13.7	102
West Liberty St C	11.1	343
Wheeling C	10.9	110

WEST VIRGINIA—Continued

West Virginia Wesleyan C	10.2%	235
West Virginia U	8.7	2,522
Bethany C	7.2	111
Shepherd C	3.8	212
W Va Sch of Osteopathic Medicine	0.0	33

WISCONSIN

Milwaukee Tech C	22.9	1,484
Blackhawk Tech Inst	21.3	450
U of Wisconsin West Bend	19.4	36
Mt Senario C	18.5	146
Gateway Tech C	17.7	779
U of Wisconsin Janesville	16.8	113
U of Wisconsin Wausau	12.5	88
Nicolet Tech C	11.8	195
U of Wis Fox Valley Ctr	11.8	85
Wisconsin Indianhead Voc-Tech Inst	11.8	645
Lakeshore Tech Inst	11.0	347
Southwest Wis Tech Inst	10.8	436
North Central Tech Inst	10.2	463
Northland C	9.8	112
Carthage C	9.6	146
Milwaukee Inst of Art & Design	9.5	63
Waukesha County Tech C	8.9	246
Lakeland C	8.8	125
Madison Area Tech C	8.6	1,034
Western Wisconsin Tech C	8.0	724
U of Wisconsin Waukesha	8.0	88
Concordia C	7.6	171
Mt Mary C	7.1	113
Alverno C	6.9	232
Mid-State Tech Inst	6.3	317
U of Wisconsin Superior	6.2	322
Voc-Tech and Adult Ed Dist Number 10	6.0	281
Fox Valley Voc-Tech Inst	6.0	605
U of Wisconsin River Falls	5.8	730
U of Wis Fond Du Lac	5.6	36
U of Wis Marinette Co	5.4	37
Voc-Tech Adult Ed District One	5.2	729

WISCONSIN—Continued

U of Wisconsin Milwaukee	5.1%	2,566
Ripon C	5.0	100
Northeast Wis Tech Inst	4.6	587
Marian C of Fond Du Lac	4.2	71
U of Wisconsin Oshkosh	4.0	1,293
Beloit C	3.9	77
U of Wis Stevens Point	3.6	1,335
Milwaukee Sch of Engineering	3.6	309
Carroll C	3.5	173
Marquette U	3.5	1,125
U of Wisconsin Parkside	3.4	320
U of Wisconsin La Crusse	3.2	1,265
U of Wisconsin Whitewater	2.8	1,337
U of Wisconsin Green Bay	2.7	594
Patricia Stevens Career C	2.7	187
U of Wisconsin Manitowoc	2.4	41
U of Wisconsin Stout	2.4	1,189
U of Wisconsin Barron	2.3	44
Cardinal Stritch C	2.2	415
Lawrence U	2.1	95
U of Wisconsin Platteville	2.0	685
Silver Lake C	2.0	50
U of Wisconsin Madison	1.9	4,557
Viterbo C	1.4	140
Med C of Wisconsin	1.3	76
U of Wisconsin Eau Claire	1.2	1,469
Edgewood C	1.1	90
St Norbert C	1.0	201
Columbia Hospital Sch of Radiologic Tech	0.0	33
St Joseph's Hospital Sch of Nursing	0.0	38
Milwaukee County Med Complex	0.0	42

WYOMING

Central Wyoming C	29.1	55
Eastern Wyoming C	15.5	58
Sheridan C	14.3	84
Laramie County CC	14.0	136
Casper C	12.0	158
Northwest CC	8.9	123
U of Wyoming	5.0	1,122

Court's Bias Ruling Seen Having Little Effect on Colleges

By SCOTT JASCHIK

WASHINGTON

A Supreme Court decision last week making it more difficult to prove illegal employment bias is likely to have little effect on higher education because the strategies it blocked off have not been successful for those challenging colleges and universities.

At the same time, legal experts said the decision portended continued confusion for colleges and other employers about discrimination law, and continued divisiveness on the Supreme Court.

In a 5-to-4 decision, the Court set strict new limits on the use of the legal theory of "disparate impact" in deciding cases on the basis of Title VII of the Civil Rights Act of 1964, which bars employment discrimination based on race, color, religion, sex, or national origin.

"Disparate impact" theory holds that employers, without seeking to discriminate, may violate anti-bias laws if employment requirements generally result in female or minority job candidates' losing a chance at employment or promotion. In such cases, the theory says that employers must offer evidence that the requirement is necessary for the employer to conduct business.

For example, if a garage required that all parking attendants pass a standardized test on which black people had a higher failure rate, and the garage could not prove that the test was an important measure of skills the attendants would need, the garage would be found in violation of the law.

"Disparate impact" was first upheld by the Supreme Court in 1971 in a case called *Griggs* v. *Duke Power Company*. In last week's case, which involved charges of employment discrimination against two salmon canneries in Alaska, the Court said that lower courts had extended "disparate impact" too far.

For the theory to be allowed now the Court ruled, those bringing suits would need to prove that the statistical disparities resulted from specific employment practices, and that those practices were not reasonable business decisions. The Court emphasized that the burden of proof in the cases would remain with those bringing the suits "at all times."

Barbara A. Lee, the co-author of *Academics in Court*, said of the decision: "In practical terms, it's not going to make much of a difference for faculty members."

Judges 'Deferential' to Colleges

Most faculty members already lose Title VII cases in which they cite "disparate impact" because federal judges "are so deferential" to colleges in deciding whether policies are legitimate for employers, added Ms. Lee, who is an associate professor of industrial relations and human resources at Rutgers University.

Sheldon E. Steinbach, general counsel for the American Council on Education, said: "This will be beneficial for colleges and universities, although the track record for most institutions in terms of ultimate success in this kind of litigation has been quite good, anyway."

For example, black people have periodically challenged requirements that all faculty members have a doctorate because so few blacks have them, and courts have always ruled that the requirement was acceptable. Likewise, courts have generally permitted states to require tests for prospective teachers even if members of minority groups failed those examinations at high rates.

Even though little will change for colleges because of last week's decision, legal experts said the Court's action demonstrated a willingness to alter long-standing precedent—something it could do with other aspects of employment law.

Mary W. Gray, a professor of mathematics at American University, said, "The most dangerous part of the case is that we essentially have an area of settled law that has been here for 18 years, and the Court feels no compunction about reversing it."

Court 'Deeply Split' on Title VII

Added Ms. Gray, chairwoman of the American Association of University Professors' Committee on the Status of Women: "The ease with which they wave their hands over all of this law is really rather astonishing."

Ms. Lee of Rutgers said the decision, coupled with other recent Supreme Court rulings, demonstrated "that the Court is very deeply split about what Title VII means."

She noted that last week's decision had been decided by one vote, and that a Title VII decision last month had also sharply divided the Court. In that decision, *Price Waterhouse* v. *Ann B. Hopkins*, the Court ruled that employees, by demonstrating that illegal discrimination took place, could shift the burden of proof to employers to prove that the employment decision would have been the same without the discrimination (*The Chronicle*, May 10). In that case, the Court's vote was 6 to 3, but the opinion was signed by only four justices, with two others writing their own.

Ms. Lee said the two decisions were not necessarily inconsistent, since the case last month involved legal questions after illegal discrimination had been demonstrated.

She added that the continuing debate about employment bias meant that colleges could not expect a clear definition of the law anytime soon. "These cases don't make litigation much more predictable," she said.

Congressional Hearings

WASHINGTON

The following Congressional hearings of interest to educators and scientists are scheduled for the coming weeks. Since changes frequently occur with little advance notice, it is advisable to check with committees on or near the hearing dates.

HOUSE OF REPRESENTATIVES

Copyright regulations. June 21. Hearing on HR 1131, a bill that would amend the 1976 Copyright Act to make states and state bodies, including public colleges and universities, financially liable for copyright violations. Contact: House Judiciary Subcommittee on Courts, Intellectual Property, and the Administration of Justice; (202) 225-3926.

National service. June 28. Hearing on several pending bills that propose programs of national service for young people. Contact: House Education and Labor Committee; (202) 225-4527.

Teaching standards. June 21. Hearing on proposed federal support of the National Board for Professional Teaching Standards, which is seeking $50-million to continue its project to set national teacher-certification standards. Contact: House Education and Labor Subcommittee on Postsecondary Education; (202) 225-3681.

SENATE

Agricultural research. June 20. Hearing on priorities in federally sponsored agricultural research. Contact: Senate Agriculture, Nutrition, and Forestry Subcommittee on Agricultural Research and General Legislation; (202) 224-2035.

Computing. June 21. Hearing on super computers. Contact: Senate Commerce, Science, and Transportation Subcommittee on Science, Technology, and Space; (202) 224-9360.

Data collection. June 16. Hearings on proposed legislation authorizing funds for programs under the Paperwork Reduction Act. Contact: Senate Governmental Affairs Subcommittee on Government Information and Regulation; (202) 224-9000.

Energy research. July 11, 18, and 20. Hearings on a bill to authorize spending for fiscal 1990 and 1991 for non-military energy programs under the Department of Energy, including research on fossil energy and nuclear reactors. Contact: Senate Energy and Natural Resources Subcommittee on Energy Research and Development; (202) 224-4971.

Global warming. June 22. Hearing on trends in carbon-dioxide emissions as they relate to global climate change. Contact: Senate Committee on Energy and Natural Resources; (202) 224-9607.

Veterans' benefits. June 14. Hearing on several bills that would affect veterans' benefits, including education benefits. Contact: Senate Veterans Affairs Committee; (202) 224-9126.

In Federal Agencies

Data collection. The following agencies have submitted lists of their data-collection requests to the Office of Management and Budget for review: Defense Department (*Federal Register*, June 1, Page 23,512; June 5, Page 24,011); Education Department (*Federal Register*, June 6, Page 24,251); Public Health Service (*Federal Register*, June 2, Page 23,704); Veterans Affairs Department (*Federal Register*, June 6, Page 24,284).

Nursing fellowships. The Public Health Service of the Department of Health and Human Services has issued proposed rules that would govern a program of grants to colleges of nursing for graduate fellowships to faculty members in those schools for research on ways to improve nursing education. The rules are required to implement provisions of the Nurse Education Amendments of 1985 to the Public Health Service Act. Comments from the public must be received by August 4 (*Federal Register*, June 5, Pages 24,002-5).

Student-loan defaults. The Education Department has issued final rules that amend several existing laws to bring about reductions in the rates of student-loan defaults at colleges and universities. Under the new regulations, the department would move to limit, suspend, or terminate students' eligibility for federal aid if the school they attend has a default rate of more than 60 per cent (*Federal Register*, June 5, Pages 24,114-27).

Washington People

Kyo R. Jhin, an international trade consultant with Metro Investment Group (Bethesda, Md.), has been nominated by President Bush to be chief counsel for advocacy at the Small Business Administration.

William B. Lenoir, a former astronaut, has been named by Richard H. Truly, the acting administrator of the National Aeronautics and Space Administration, to be associate administrator of the space-station program.

Samuel W. Speck, president of Muskingum College, has been appointed by Secretary Cavazos to be a member of the National Board of the Fund for the Improvement of Postsecondary Education.

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News Summary

Articles on inside pages

The drive to map a complete set of human genes is gaining both scientific and political steam: Page A4.

The recent battles in Congress over ethics in government are the latest extension of political warfare, says a professor at Cornell: Page A4.

Some members of the A.A.U.P. are calling for changes in its policy on disclosure of tenure files: Page A11.

A leading opponent of Congressional earmarking, the U. of California system, is trying to get $1.1-million earmarked for itself: Page A14.

The subcommittee that oversees spending for education and health research was given a 9-per-cent increase by the House Appropriations Committee for next year: Page A14.

A proposal to end re-grants, block grants to private groups that in turn give funds to artists and museums, has alarmed supporters of the arts and humanities: Page A17.

Asian Americans have been admitted in record numbers by some of the nation's elite colleges: Page A21.

Amid the cliches that dominate the debate about change in college sports, the new commissioner of the Big Ten Conference defies the stereotypes: Page A25.

After decades of control by the Communist Party, Polish universities are regaining authority over their own affairs: Page A27.

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EVENTS OF 'EXTRAORDINARY POLITICAL IMPORTANCE'

Stirrings of Democracy in China and Russia Astonish Experts: Sinologists Say Beijing Crackdown Perils Research Under Way

Democracy

By ELLEN K. COUGHLIN

That the two leading Communist countries in the world should be simultaneously grappling—although in vastly different ways—with stirrings of democracy within their borders is a source of almost universal astonishment among scholars of international politics.

"Clearly the wave of democracy which began back in the 70's has continued, and surprising things have happened," says Samuel P. Huntington, a professor of government at Harvard University, referring as well to such nations as Pakistan, Chile, and South Korea that are moving toward more democratic forms of government. "Experts on most of these countries were surprised by these developments."

To speak of democracy in the Soviet Union and China is surely premature. The vast pro-democracy demonstrations that began among Chinese students in April, and eventually drew in supporters from nearly every segment of the society, have been brutally squelched, and it is anyone's guess when, or even if, such a movement will recur. The open elections to the Soviet Union's Congress of People's Deputies in March—in which Communist Party candidates, running opposed for the first time, were soundly thrashed—were but the latest step in what appears to be a steady march toward political liberalization in that country, but it is impossible to know where the march will end.

To call what is happening in those two countries democracy movements, or transitions to democracy, is also to stretch the definition of the term. What-

Continued on Page A6

The Chinese goverment has issued new regulations that could make it harder for students to travel abroad: A27.

Sinologists

By KIM A. McDONALD

The government crackdown on students and dissidents in China has not only shocked and horrified U.S. scholars, but also imperiled the work of hundreds of Sinologists, many of whom believe open communication with Chinese scholars and citizens on whom they based their research will be hampered for years to come.

The situation is particularly distressing to social and political scientists who have invested years in long-term studies of the Chinese people and expanded their research programs as the reform movement in China gave them greater access and freedom within the country.

Now, many of those scholars have been forced to cancel plans to return to China, citing concerns about their own safety, the safety of Chinese citizens and scholars with whom they communicate, and the xenophobic climate there.

Continued on Page A6

Colleges Seen Vulnerable to Legal Actions Arising From Computer Viruses

By THOMAS H. MOORE

Colleges and universities are unusually vulnerable to lawsuits arising from computer viruses and must take steps to reduce their liability, a report says.

Lawsuits could arise if a student or a college employee writes a virus that damages computer facilities, or if a college defaults on a computer contract with an outside party as a result of a virus, the report says. Since many large computer systems are connected in networks, legal actions could be filed not just by computer users on the campus, but by users far from the source of the virus, it adds.

Can Destroy or Alter Data

The report, "Computer Viruses: Legal and Policy Issues Facing Colleges and Universities," was issued by the American Council on Education and the United Educators Insurance Risk Retention Group to educate colleges about potential risks developing from computer viruses. A "virus" is a rogue program that travels from machine to machine and can destroy or alter data in its wake.

"Institutions are well advised to think about the nature of the risks posed and minimize the harm to others," said David R. Johnson, a Washington-based attorney who is a co-author of the report.

Someone damaged by a computer virus

Continued on Page A20

Colleges Rush to Comply With Rules on Fraud and Drugs After Cavazos Warns of Aid Cut-Off

By THOMAS J. DeLOUGHRY

WASHINGTON

Colleges, universities, and trade schools were racing to comply last week with federal regulations intended to deter drug abuse and fraud.

More than 700 institutions had been notified by the Department of Education that money for certain student-aid programs would be cut off at the end of this week because they had yet to comply with the regulations. The warning prompted a flurry of responses and, by the end of last week, fewer than 250 institutions remained in danger of losing the federal aid.

Early in the week, Education Secretary Lauro F. Cavazos warned that students attending about 700 institutions could have money for their Pell Grants interrupted because the colleges had failed to comply with the anti-fraud regulations. About 180 institutions, many of which are also among the 700, were told that they could lose money for Perkins Loans, College Work-Study, and Supplemental Educational Opportunity Grants because they had not complied with efforts to make campuses "drug free."

In both cases, compliance with the regulations required that college or university presidents file a form with the Education Department.

Officials at the department said both of the lists of institutions included large numbers of two-year and four-year colleges, as

Continued on Page A18

William J. Bennett, the federal "drug czar," has accused colleges of failing to stem drug use on their campuses: A18.

BUSH CALLS FOR 'YES'

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President Bush unveiled a "Youth Engaged in Service" program last week after meeting with young volunteers at the White House: Page A14.

MARGINALIA

From the *MLA Newsletter*:

". . . On average, 61 candidates applied for any given position, with the number ranging between 30 and 110 for 50% of the positions. . . . Of those applying for a position, between 34% and 50% tended to be women."

They weren't sure?

■

From a subscription-promotion letter from *Fund Raising Management*:

"The Mid-Michigan chapter of the American Red Cross decided to adopt a more aggressive approach to donor acquisition. In the past blood donors had been asked to give through the mail, but response rates were poor. . . ."

Leaky envelopes, probably.

■

Found in a crowded desk drawer (in an announcement of the Pacific Northwest Social Science Conference back in February):

"The afternoon activities will feature a group social science tour of historic Seattle. Upon return from the tour, a closing Hosed Cocktail Party will end the conference."

With everybody wet but happy, we trust.

■

From a police officer's "Incident Report" at the University of Rhode Island:

"At about 0825 hrs I spoke with Mr. Leslie who told me that unknown persons broke into Davis rm 21 through a window in his office rm E. The window was wide open when he came to work this date. He saw that both the inner and outer window had been opened, having been jimmied to gain entry. A plant then moved aside. . . ."

We'd move aside, too, in those circumstances.

■

We have received a flyer from Rutgers University Press advertising its "Adolescents in a Changing World Series."

Play ball!

■

A four-color brochure about Adrian College's "Excellence" drive describes "The Adrian Advacement Campaign."

From there, there's nowhere to advace but up.

■

From our very own "Give & Take" column:

". . . Would we refuse money from milk producers because hospitals are filled with coronary patents who have high cholesterol?"

Ashland College's Joan Ronk suggests we bypass that question.

—C.G.

In Brief

3 Charged in Drug Case at Kent State U.

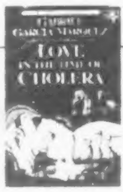
Three Kent State University officials were indicted last week for allegedly forging prescriptions and improperly dispensing addictive drugs to athletes and graduate students.

Mark A. Klepatz, assistant prosecutor for Portage County, Ohio, said the three had improperly dispensed pain-killing drugs over a number of years.

Jay W. Cranston, coordinator for university medical services, pleaded not guilty to four felony charges of illegal processing of drug documents. John C. Faulstick, the head athletic trainer, pleaded not guilty to a misdemeanor charge of practicing medicine without a license. Edwin R. Ritchey, the pharmacist for the university health center, pleaded not guilty to a misdemeanor charge of illegally filling a prescription signed by someone other than a physician.

Prosecutors said more university employees might be indicted as the investigation continues. Kent State officials said they would continue to cooperate with investigators.

What They're Reading on College Campuses

		Previous Survey
1.	 Love in the Time of Cholera, by Gabriel Garcia Marquez	4
2.	Yukon Ho! by Bill Watterson	2
3.	Wildlife Preserves, by Gary Larson	7
4	The Satanic Verses, by Salman Rushdie	1
5.	All I Really Need to Know I Learned in Kindergarten, by Robert Fulghum	—
6.	The Mummy, by Anne Rice	—
7.	Chaos, by James Gleick	3
8.	The Joy Luck Club, by Amy Tan	—
9.	The Power of Myth, by Joseph Campbell with Bill Moyers	—
10.	Lightning, by Dean R. Koontz	—

The Chronicle's list of best-selling books was compiled from information supplied by stores serving the following campuses: American U., Baylor U., Bucknell U., Carleton College, Carnegie Mellon U., Case Western Reserve U., Central Michigan U., Idaho State U., Indiana U., Kent State U., Lawrence U., Lehigh U., Mankato State U., Montana State U., New York U., Pennsylvania State U., Portland State U., Princeton U., San Francisco State U., Stanford U., Syracuse U., Tarrant County Junior College, Tulane U., U. of California at San Diego, U. of Hawaii, U. of Illinois at Urbana-Champaign, U. of Iowa, U. of Maryland-Baltimore County, U. of Missouri at Columbia, U. of Nebraska at Lincoln, U. of New Orleans, U. of Notre Dame, U. of Pittsburgh, U. of Puget Sound, U. of Virginia, U. of Washington, U. of Wisconsin at Madison, Vanderbilt U., and Xavier U. (Ohio). Reports covered sales of hardcover and paperback trade books in May.

ACLU Challenges Powers of Brigham Young Police

The American Civil Liberties Union of Utah has filed a brief challenging the constitutionality of state laws allowing Brigham Young University police to enforce state laws off the campus.

The brief, filed in the state Court of Appeals, seeks to overturn the conviction of a Provo minor for consumption of alcohol. The youth was arrested by a B.Y.U. police officer outside the university boundaries.

"We think it's a real clear violation of the First Amendment for any church institution to have statewide police powers," said Michele A. Parish-Pixler, the Utah A.C.L.U.'s acting executive director. Brigham Young University is affiliated with the Church of Jesus Christ of Latter-day Saints (Mormons).

A university spokesman said the arrangement was like those between other religiously affiliated schools and the cities in which they are located.

Supreme Court Refuses Deportation Appeal

The U.S. Supreme Court last week refused to hear the case of Margaret J. Randall, a writer and professor who renounced her American citizenship when living in Mexico and is now fighting to regain it.

The U.S. Immigration and Naturalization Service maintains that Ms. Randall's writings advocate communism, and that she may be denied permanent residency under federal law.

Her deportation order has been under appeal in the immigration service since 1985, but Ms. Randall filed a separate lawsuit challenging the constitutionality of the orders. A federal appellate court dismissed the suit as premature, pending the outcome of the immigration-service appeal. Ms. Randall, charging that she had been denied permanent-resident status in violation of her right to free speech, then asked the Supreme Court to review the suit.

Since she returned to the United States five years ago, Ms. Randall has taught at the University of New Mexico, Trinity College in Connecticut, and Oberlin and Macalester Colleges.

$3-Million Disappears From Valdosta State Fund

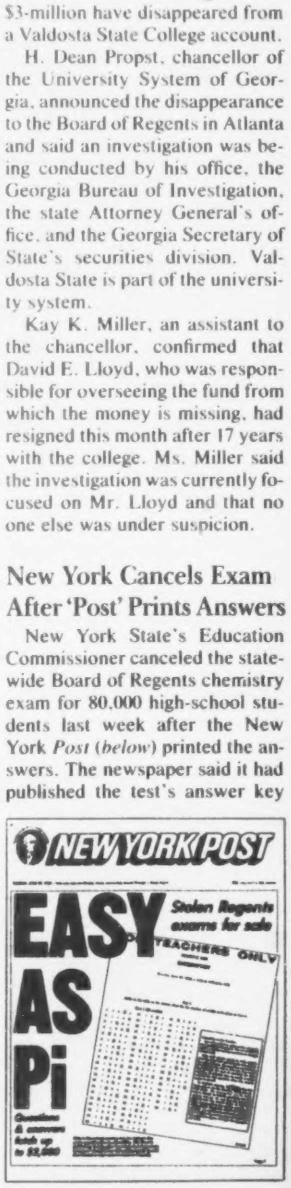
Cash reserves totaling at least $3-million have disappeared from a Valdosta State College account.

H. Dean Propst, chancellor of the University System of Georgia, announced the disappearance to the Board of Regents in Atlanta and said an investigation was being conducted by his office, the Georgia Bureau of Investigation, the state Attorney General's office, and the Georgia Secretary of State's securities division. Valdosta State is part of the university system.

Kay K. Miller, an assistant to the chancellor, confirmed that David E. Lloyd, who was responsible for overseeing the fund from which the money is missing, had resigned this month after 17 years with the college. Ms. Miller said the investigation was currently focused on Mr. Lloyd and that no one else was under suspicion.

New York Cancels Exam After 'Post' Prints Answers

New York State's Education Commissioner canceled the statewide Board of Regents chemistry exam for 80,000 high-school students last week after the New York *Post* (*below*) printed the answers. The newspaper said it had published the test's answer key



Graduate Students' Report Calls UCLA a Major Polluter

LOS ANGELES

A team of graduate students at the University of California at Los Angeles has found that their institution is one of the region's major polluters.

After a six-month study of the air, water, and waste pollution produced by U.C.L.A., six students in the university's Graduate School of Architecture and Urban Planning compiled a 500-page report on environmental issues affecting the 35,000-student campus.

The report recommended a campuswide recycling program and more monitoring of air emissions. It also says the university should attempt to decrease the amount of hazardous, radioactive, and solid wastes produced on its campus.

"U.C.L.A. isn't the worst polluter in the Los Angeles area," said April A. Smith, one of the students who conducted the study. But because of its sheer size and the range of its activities, the university "contributes to a lot of different environmental problems" in the region, she said.

Like a small city, the study found, U.C.L.A. produces 15,000 tons of solid waste and 800 tons of medical waste each year. It generates 100 tons of hazardous waste a year, including laboratory chemicals and asbestos, and 1 million to 2 million gallons of sewage daily.

University Defended

The campus is the third-largest user of electricity in Los Angeles, the report said, the eighth-largest water-user, and the tenth-largest producer of carbon monoxide.

Allen Solomon, assistant vice-chancellor for facilities, said the amount of pollution released by the university was a factor of its size and did not mean the university takes an irresponsible approach to environmental issues.

In addition, he said, some of the statistics in the report were taken out of context. While the 100 tons of hazardous waste produced on campus appears to be a large amount, he said, it accounts for much less than 1 per cent of the total generated in the Los Angeles area.

The university is considering the report's recommendations, Mr. Solomon said, adding that it has already taken or considered some of the actions the report proposes. For example, the students suggested the university could conserve water by planting more drought-resistant shrubs on its landscape. That is already happening, he said.

Mr. Solomon applauded the recommendations on recycling, but said other proposals in the report were too expensive or impractical. For example, the report calls on the university to consider composting of food wastes, but Mr. Solomon said that could raise pest-control problems.

Ms. Smith said the graduate students are working with a member of the California Assembly to devise legislation for reducing the amount of trash and other wastes generated by universities.

—DENISE K. MAGNER

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FACT FILE: Fall 1987 Enrollment in U.S. Colleges and Universities

By level, enrollment status, and type and control of institution

	Undergraduate			First-professional			Graduate			All levels		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Public institutions												
4-year												
Full-time	1,631,422	1,663,064	3,294,486	65,449	39,926	105,375	185,222	151,485	336,707	1,882,093	1,854,475	3,736,568
Part-time	476,361	608,463	1,084,824	2,706	2,210	4,916	243,624	364,078	607,702	722,691	974,751	1,697,442
Total	2,107,783	2,271,527	4,379,310	68,155	42,136	110,291	428,846	515,563	944,409	2,604,784	2,829,226	5,434,010
2-year												
Full-time	744,110	786,802	1,530,912	0	0	0	0	0	0	744,110	786,802	1,530,912
Part-time	1,224,730	1,785,412	3,010,142	0	0	0	0	0	0	1,224,730	1,785,412	3,010,142
Total	1,968,840	2,572,214	4,541,054	0	0	0	0	0	0	1,968,840	2,572,214	4,541,054
All												
Full-time	2,375,532	2,449,866	4,825,398	65,449	39,926	105,375	185,222	151,485	336,707	2,626,203	2,641,277	5,267,480
Part-time	1,701,091	2,393,875	4,094,966	2,706	2,210	4,916	243,624	364,078	607,702	1,947,421	2,760,163	4,707,584
Total	4,076,623	4,843,741	8,920,364	68,155	42,136	110,291	428,846	515,563	944,409	4,573,624	5,401,440	9,975,064
Private institutions												
4-year												
Full-time	712,165	747,746	1,459,911	88,212	48,217	136,429	108,281	81,648	189,929	908,658	877,611	1,786,269
Part-time	175,913	256,546	432,459	13,766	7,981	21,747	156,187	161,413	317,600	345,866	425,940	771,806
Total	888,078	1,004,292	1,892,370	101,978	56,198	158,176	264,468	243,061	507,529	1,254,524	1,303,551	2,558,075
2-year												
Full-time	76,057	101,700	177,757	0	0	0	0	0	0	76,057	101,700	177,757
Part-time	27,926	29,485	57,411	0	0	0	0	0	0	27,926	29,485	57,411
Total	103,983	131,185	235,168	0	0	0	0	0	0	103,983	131,185	235,168
All												
Full-time	788,222	849,446	1,637,668	88,212	48,217	136,429	108,281	81,648	189,929	984,715	979,311	1,964,026
Part-time	203,839	286,031	489,870	13,766	7,981	21,747	156,187	161,413	317,600	373,792	455,425	829,217
Total	992,061	1,135,477	2,127,538	101,978	56,198	158,176	264,468	243,061	507,529	1,358,507	1,434,736	2,793,243
Public and private institutions												
4-year												
Full-time	2,343,587	2,410,810	4,754,397	153,661	88,143	241,804	293,503	233,133	526,636	2,790,751	2,732,086	5,522,837
Part-time	652,274	865,009	1,517,283	16,472	10,191	26,663	399,811	525,491	925,302	1,068,557	1,400,691	2,469,248
Total	2,995,861	3,275,819	6,271,680	170,133	98,334	268,467	693,314	758,624	1,451,938	3,859,308	4,132,777	7,992,085
2-year												
Full-time	820,167	888,502	1,708,669	0	0	0	0	0	0	820,167	888,502	1,708,669
Part-time	1,252,656	1,814,897	3,067,553	0	0	0	0	0	0	1,252,656	1,814,897	3,067,553
Total	2,072,823	2,703,399	4,776,222	0	0	0	0	0	0	2,072,823	2,703,399	4,776,222
All												
Full-time	3,163,754	3,299,312	5,463,066	153,661	88,143	241,804	293,503	233,133	526,636	3,610,918	3,620,588	7,231,506
Part-time	1,904,930	2,679,906	4,584,836	16,472	10,191	26,663	399,811	525,491	925,302	2,321,213	3,215,588	5,536,801
Total	5,068,684	5,979,218	11,047,902	170,133	98,334	268,467	693,314	758,624	1,451,938	5,932,131	6,836,176	12,768,307

By level, enrollment status, and age of student

	Undergraduate			First-professional			Graduate			All levels		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Full-time students												
Under 18	1.5%	2.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	1.8%	1.6%
18 and 19	34.4	37.6	36.1	0.1	0.1	0.1	0.1	0.1	0.1	30.2	34.3	32.2
20 to 21	29.8	29.2	29.5	2.6	3.6	3.0	1.1	1.3	1.2	26.3	26.8	26.5
22 to 24	18.7	13.5	16.0	40.0	40.2	40.1	22.0	24.0	22.9	19.8	14.8	17.3
25 to 29	7.8	6.5	7.2	37.6	32.4	35.7	36.8	30.3	33.9	11.4	8.7	10.1
30 to 34	3.4	4.3	3.8	10.9	11.5	11.1	19.7	16.5	18.3	5.0	5.2	5.1
35 to 39	1.7	2.9	2.3	4.5	5.9	5.0	10.3	11.7	10.9	2.5	3.5	3.0
40 to 49	1.3	2.4	1.8	2.1	3.9	2.8	6.0	11.3	8.3	1.7	3.0	2.4
50 to 64	0.3	0.5	0.4	0.4	0.7	0.5	1.3	2.6	1.9	0.4	0.7	0.5
65 and over	0.1	0.1	0.1	0.1	0.1	0.1	0.7	0.2	0.5	0.2	0.1	0.1
Age unknown	1.0	1.0	1.0	1.6	1.7	1.7	2.1	1.9	2.0	1.1	1.1	1.1
Part-time students												
Under 18	2.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	1.7%	1.7%	1.7%
18 and 19	8.7	7.5	8.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	6.2	6.6
20 to 21	11.5	9.3	10.2	0.4	0.3	0.4	0.3	0.3	0.3	9.5	7.8	8.5
22 to 24	17.1	13.6	15.1	10.5	10.0	10.3	8.9	8.6	8.7	15.6	12.8	14.0
25 to 29	20.6	17.6	18.9	35.8	30.4	33.7	28.9	23.3	25.7	22.2	18.6	20.1
30 to 34	14.6	14.7	14.7	24.3	22.3	23.6	23.4	18.7	20.7	16.2	15.4	15.7
35 to 39	9.3	12.0	10.9	14.6	16.0	15.1	16.7	18.0	17.5	10.6	13.0	12.0
40 to 49	8.8	13.7	11.7	10.1	14.7	11.9	14.2	20.5	17.8	9.7	14.8	12.7
50 to 64	3.7	5.3	4.6	2.6	3.8	3.1	3.3	5.4	4.5	3.6	5.3	4.6
65 and over	1.6	2.1	1.9	0.3	0.3	0.3	0.6	0.5	0.5	1.4	1.9	1.7
Age unknown	2.1	2.1	2.1	1.4	2.1	1.7	3.6	4.5	4.1	2.4	2.5	2.4
All students												
Under 18	1.7%	2.0%	1.9%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	1.5%	1.8%	1.6%
18 and 19	24.7	24.1	24.4	0.1	0.1	0.1	0.0	0.0	0.0	21.1	21.1	21.1
20 to 21	22.9	20.3	21.5	2.4	3.2	2.7	0.6	0.7	0.6	19.7	17.9	18.7
22 to 24	18.1	13.5	15.6	37.1	37.1	37.1	14.4	13.4	13.9	18.2	13.9	15.9
25 to 29	12.6	11.5	12.0	37.4	32.2	35.5	32.2	25.5	28.7	15.6	13.4	14.4
30 to 34	7.6	8.9	8.3	12.2	12.6	12.3	21.8	18.0	19.8	9.4	10.0	9.7
35 to 39	4.6	7.0	5.9	5.5	6.9	6.0	14.0	16.1	15.1	5.7	8.0	6.9
40 to 49	4.1	7.4	5.9	2.9	5.0	3.7	10.7	17.7	14.3	4.9	8.5	6.8
50 to 64	1.6	2.6	2.2	0.7	1.0	0.8	2.5	4.6	3.6	1.7	2.8	2.3
65 and over	0.7	1.0	0.9	0.1	0.1	0.1	0.6	0.4	0.5	0.6	0.9	0.8
Age unknown	1.4	1.5	1.5	1.6	1.8	1.7	3.0	3.7	3.3	1.6	1.7	1.7

By state, with percentage change since 1980

Alabama	183,348	+11.6%	Illinois	686,954	+ 6.6%	Montana	35,882	+ 2.0%	South Carolina	140,841	+ 6.3%
Alaska	26,937	+26.5	Indiana	256,264	+ 3.6	Nebraska	100,828	+12.7	South Dakota	31,755	− 3.1
Arizona	237,233	+17.0	Iowa	158,230	+12.7	Nevada	48,063	+18.8	Tennessee	202,006	− 1.3
Arkansas	79,273	+ 2.1	Kansas	146,439	+ 7.2	New Hampshire	56,163	+20.0	Texas	802,226	+14.4
California	1,788,012	− 0.2	Kentucky	153,351	+ 7.2	New Jersey	294,433	− 8.5	Utah	106,792	+13.6
Colorado	183,583	+12.7	Louisiana	173,229	+ 8.2	New Mexico	83,074	+42.5	Vermont	33,242	+ 8.5
Connecticut	162,382	+ 1.7	Maine	47,55[illegible]	+ 9.9	New York	992,544	0.0	Virginia	319,026	+13.7
Delaware	36,650	+11.3	Maryland	239,362	+ 6.1	North Carolina	321,251	+11.7	Washington	245,872	−19.0
District of Columbia	77,566	−10.5	Massachusetts	423,916	+ 1.3	North Dakota	37,052	+ 8.8	West Virginia	77,256	− 5.8
Florida	489,964	+19.0	Michigan	535,486	+ 3.0	Ohio	518,464	+ 6.0	Wisconsin	281,717	+ 4.7
Georgia	224,066	+21.7	Minnesota	237,212	+14.8	Oklahoma	172,730	+ 7.8	Wyoming	26,062	+23.2
Hawaii	52,291	+10.8	Mississippi	105,510	+ 3.1	Oregon	152,657	− 3.0	Service Schools	60,135	+20.7
Idaho	45,567	+ 5.9	Missouri	251,778	+ 7.4	Pennsylvania	554,370	+ 9.2			
						Rhode Island	71,708	+ 7.2	Total	12,768,307	+ 5.6%

SOURCE: NATIONAL CENTER FOR EDUCATION STATISTICS

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News Summary

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The summer reading lists of many academics are conspicuously free of budget reports or other college business, a survey reveals: Page A11.

Battles over whether state colleges should be forced to open their records and meetings to the public continue to heat up: Page A18.

As states contend with tight budgets, reviews to consolidate or eliminate academic programs are becoming routine: Page A18.

Will "Brilliant Pebbles" affect the millions of dollars of Star Wars research conducted at universities?: Page A19.

The Education Department is battling 22 student-loan agencies over rights to $200-million: Page A19.

Summer programs for high-school students are being offered by more colleges to fill empty classrooms and give the students an introduction to college life: Page A31.

Football players who don't want to go to college will be offered another route to the professional league, beginning this summer: Page A34.

A university in Amman, Jordan, is trying to substitute for Palestinian institutions closed by the Israeli army in the occupied territories: Page A35.

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New U.S. Visa Rules for Chinese Students Challenged as Risky

By GOLDIE BLUMENSTYK

WASHINGTON

Chinese citizens studying in the United States are urging the Bush Administration and Congress to alter the newly announced rules for obtaining extensions on their visas.

The students say the current program is not helpful to them and fear that some of its requirements could unwittingly mark them or their families for retribution by the Chinese government.

The students' message is provoking a response on Capitol Hill, where several bills have been introduced to make it easier for Chinese students to remain in the United States until the violence and political repression in China cease.

Among them is a measure by Rep. Nancy Pelosi, a California Democrat, which already has 158 co-sponsors. In the Senate it is being sponsored by Alan J. Dixon, Democrat of Illinois. A nearly identical bill has been introduced by Democratic Senators Herbert H. Kohl of Wisconsin and Alan Cranston of California.

"If a single Chinese student can stand up to a tank in Beijing, we should be able to stand up to bureaucracy in America to pre-

Continued on Page A36

China may be limiting its approval of requests for foreign study to students with politically correct attitudes: Page A35.

Supreme Court Ruling Clears the Way for States to Limit Abortions in Hospitals Affiliated With Public Universities

Support for laws is strong in farm belt and the South

By SCOTT JASCHIK

WASHINGTON

The Supreme Court's decision last week to uphold a Missouri law restricting abortion clears the way for states to enact legislation to bar the faculty members and hospitals of public universities from performing most such operations.

Only Missouri institutions will be immediately affected by the ruling, since that is the only state that has such a law in place. But advocates on both sides of the abortion issue predict that in nearly every state, lawmakers will introduce legislation similar to the Missouri law in next year's sessions.

Estimates vary on the number of states likely to adopt the laws, but most abortion-law experts say that about 10—mostly in the South or the farm belt—are likely to do so. Another 10 states are considered unlikely to pass the laws, and the outcome in the remaining 30 states is uncertain.

For public universities with medical schools, the debates over abortion legislation will be thorny.

'It's an Impossible Issue'

Some deans and hospital directors say university hospitals have an obligation to insure that women can obtain abortions at their facilities. Others say that public universities, because they are financed by taxpayers, must consider their community's views on abortion and adopt restrictions on the services they offer. Still others say that, regardless of their views, universities risk a loss of financial support if they continue to provide abortions to all women who seek them.

"It's an impossible issue from a political

Continued on Page A25

TRUMAN MEDICAL CENTER

James J. Mongan: "One can argue that it's a terrible infringement on academic freedom. What's next? Gallbladders? But then others say abortion is murder."

RENEWED VIOLENCE ROILS SOUTH KOREA'S CAMPUSES

AP/WIDE WORLD

Riot police round up a group of radical students at Hanyang University in Seoul, where more than 4,000 protesters had gathered for an anti-government rally: Page A35.

MARGINALIA

Notice on the wall of the photocopying room of Alexander Library at Rutgers University:

"Our cleaning staff resigned and your mother refuses to answer our calls, so . . .

"PLEASE return all materials to the shelves outside the door. THANKS!"

■

We have received the following communiqué from Joyce E. Ashcroft, a staff member at St. Paul's School in Concord, N.H.:

"As an executive secretary at this private boarding school, I was recently the lucky recipient of a memo from the upper echelon. In it, they detail some new terminology which is to be adopted for all of our publications.

"We must now refer to our dormitories as 'houses,' and we may not capitalize 'house' as we have in the past in order to distinguish a 'House' (dorm) from a 'house.'

"The application of this new rule resulted in the following first-draft passage from the new faculty handbook: 'You will be assisted by an older faculty member who has had many years' experience in a house but who no longer lives in a house.' This will come as a shock to new faculty who anticipated better conditions at our facility. Where *do* the senior faculty live? In covered wagons?

"Secretaries are not expected to solve these problems, which is only fair because we do not cause them. We merely bring them to the Rector (you must capitalize 'Rector,' but you may no longer capitalize 'vice rector'). Then the English department (you may capitalize 'English,' but not 'department') will mull it over until September (capitalization of which is still, as far as I know, acceptable) and then perhaps they will offer us a solution a few hours before the new faculty members arrive for Opening Day at the School (yes, believe it or not, that *is* correct by our rules).

"wE are a iittle ConFuseD, but i'M suRe we'Ll soon gEt the hanG of IT."

■

More from New Hampshire, whence an anonymous reader has sent us a copy of a flyer from the Department of Independent Living at the Pennsylvania State University. Our correspondent marked this passage:

"GO-60 offers persons 60 and older who are retired or work less than part time the opportunity to enroll in credit courses for one-half the regular cost of tuition."

"Although being retired is different from being unemployed," our correspondent writes, "I'm not sure how much one works to work less than part time. Perhaps this is a concept based on a work continuum from retirement to full-time employment?"

—C.G.

In Brief

Teachers' Union Elects New President

WASHINGTON

In what has been called a victory for higher-education interests, Keith B. Geiger last week was elected president of the National Education Association, the nation's largest teachers' union.

Nearly 8,500 delegates to the N.E.A.'s annual national meeting voted to choose a successor to Mary Hatwood Futrell, the three-term president said by some to have been the most popular president in the organization's 130-year history.

Mr. Geiger, who has been the N.E.A.'s vice-president for the past six years, defeated John I. Wilson, a member of the association's executive committee, 4,870 to 3,600. Mr. Geiger will lead the 1.97-million-member union for two years.

In March the N.E.A.'s 250-member National Council for Higher Education endorsed Mr. Geiger.

Carol Gaede, a professor of speech at Moorhead State University who just finished her term as vice-president of the council, said its members believed that under Mr. Geiger's leadership, the N.E.A. would focus more attention on higher-education issues than would have been the case under Mr. Wilson.

She said the N.E.A. could now be expected to budget more money for its higher-education programs.

Animal-Rights Group Damages Texas Tech Lab

LUBBOCK, TEX.—An animal-rights group broke into a laboratory at Texas Tech University's Health Sciences Center last week, stealing five cats and causing some $70,000 in damage.

The cats, which were used in sleep research, were taken from the laboratory of John Orem, a professor of physiology. Equipment was also vandalized and documents were stolen, officials reported.

In a statement, an underground group calling itself the Animal Liberation Front claimed responsibility for the incident. The statement, which was released through the Washington-based People for the Ethical Treatment of Animals, quoted unidentified members of the Animal Liberation Front charging that Mr. Orem used inhumane research methods, such as bolting the cats' heads into steel clamps.

Mr. Orem denied the charge, calling it "sensational nonsense." His work, he said, involves the study of breathing during sleep, including disorders such as sudden infant death syndrome and apnea.

Strikers End 5-Day Fast to Protest Telescope Site

TUCSON, ARIZ.—Hunger strikers at the University of Arizona last week ended a five-day fast staged to protest the institution's plans to construct three telescopes on a 10,000-foot mountain.

The three protesters contended that the telescopes would be used for military research, including work for the Strategic Defense Initiative, the missile-defense system commonly known as "Star Wars."

The protesters also said the university's plans to build the telescopes in an observatory on Mount Graham, located about 120 miles northeast of Tucson, would damage the mountain environmentally.

Steve Emerine, a spokesman for the university, said the telescopes would not be used for any military research, nor would they endanger the mountain's ecology.

The university has developed a "revolutionary way of casting mirrors for telescopes" that provides a better image, is less costly, and is lighter in weight than older instruments, Mr. Emerine added.

Before the university can build the observatory, it must construct a road up the mountain. That work will begin in August.

Campus Radio Station Destroyed by Fire

DENTON, TEX.—A fire at the student-run radio station at the University of North Texas destroyed almost $150,000 in equipment and most of the organization's recorded music.

Half of KNTU's 5,000 records and all of its 250 compact discs were lost in the blaze.

The local fire department is investigating the fire, which is believed to have been an accident.

The students went back on the air the following day using borrowed equipment and a temporary office in another building.

Archaeological Site Vandalized in Oregon

PORTLAND, ORE.—An archaeological site at Scappoose, Ore., being worked by faculty members and students from Portland State University, has been vandalized, apparently by professional artifact robbers.

By taking many artifacts and trashing parts of the dig, the first full-scale excavation of an American Indian house in the Portland area, the robbers ruined two years' worth of work by Portland State researchers. The anthropologists said they would be unable to gain a complete picture of the operation of the building, a large, cedar house in which about 75 people lived 500 to 700 years ago.

University officials said they had learned that a small group of artifact robbers was being blamed for a large number of similar thefts around the country, many at Indian grave sites. Arrowheads can be sold for up to $150 each, and other artifacts for even more.

Tufts U. Sets Policy Limiting Expression

MEDFORD, MASS.—Tufts University has instituted a policy that limits the exercise of free speech in certain areas of its campus.

The policy, which will go into effect this fall, was developed by a student-faculty committee in response to a controversy sparked by the sale on campus by a student of T-shirts deemed offensive to women. The printing on the shirts gave 15 reasons "Why Beer is Better than Women at Tufts." All of the reasons were disparaging to women, according to Bruce J. Reitman, associate dean of students. The student who sold the shirts was placed on probation, which was later revoked.

The policy provides for free expression in most public areas of the campus but identifies several

Institutes of Health Find That Purdue Professor Plagiarized Experiments

By CHRIS RAYMOND

BETHESDA, MD.

The National Institutes of Health have found C. David Bridges, a professor of biological sciences at Purdue University, guilty of plagiarizing experiments from a manuscript submitted to him for review.

Calling Mr. Bridges's actions "reprehensible," the institutes will strip him of all current N.I.H. grants and exclude him for 10 years from serving on peer-review committees for any proposals submitted to the Department of Health and Human Services.

Furthermore, the N.I.H. has recommended to the Secretary of Health and Human Services that he prevent Mr. Bridges from receiving government research funds in the future. A final decision on such a step has not been made, and Mr. Bridges is allowed to request a hearing.

According to Katherine L. Bick, deputy director for extramural research at the N.I.H., this is the first time in the eight-year history of the institutes' misconduct investigations in which the issue has been raised of the abuse of privileged information gained during a manuscript review.

Baylor Also Held Inquiry

The N.I.H. decision followed an investigation that began in September. It came on the heels of a similar investigation conducted by officials at the Baylor College of Medicine, where Mr. Bridges formerly worked and where the plagiarism occurred.

The findings were released to the involved parties on June 29, but had not been made public. A copy of the report was made available to *The Chronicle*.

Both investigations came to a similar conclusion: that Mr. Bridges had used information he gleaned from a manuscript sent to him for review to set up his own experiments and gain credit for publishing the results first.

The manuscript was written by three scientists at Harvard Medical School and had been sent out for review in 1986 by editors at the *Proceedings of the National Academy of Science*. It concerned experiments on the role played by a key enzyme in the vision process. Many think the line of research has produced a crucial missing link in advancing the understanding of human vision.

Mr. Bridges published his own research on the same subject on June 26, 1987, in the journal *Science*, with only a single reference in a footnote to the work already completed by the Harvard group. The *PNAS* manuscript of Paul S. Bernstein and his colleagues at Harvard was published later that year in *PNAS*. *Science* will publish a notice in its July 14 edition acknowledging the priority of the Harvard scientists for the work described in the *Science* article.

Mr. Bridges contended that he had begun his research before receiving the *PNAS* manuscript, but he has never submitted original laboratory notes to support his claim, the N.I.H. report says. The Baylor committee concluded that Mr. Bridges had actually altered his records to make it look as though he had begun his experiments in May 1986, rather than in July.

NIH Took Up Issue in 1987

Baylor notified the National Eye Institute of the investigation, since Mr. Bridges was receiving research funds from the institute, which is part of the N.I.H. When the N.I.H. took up the issue in the summer of 1987, it notified Purdue of its investigation. Mr. Bridges had moved to Purdue before Baylor's investigation was completed, according to Ms. Bick. She said Baylor should be credited with following through on its investigation even though Mr. Bridges had left the university.

Mr. Bridges could not be reached for comment.

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FACT FILE: Colleges and Universities With Collective-Bargaining Agents in 1988

The following table lists institutions where faculty members were represented by certified collective-bargaining agents in 1988, and thus were entitled to bargaining rights.

The figures were compiled by the National Center for the Study of Collective Bargaining in Higher Education and the Professions. The center is housed at the City University of New York's Baruch College.

Generally, the statistics include full-time faculty members, but they may also include other faculty members covered by the same bargaining agent. Because of reporting inconsistencies, institutions do not always specify the makeup of the bargaining unit. In some cases, different faculty groups at the same campus may be represented by different agents. Institutions that list more than one agent for the same unit have joint representation.

In the tables below, private institutions are indicated by an asterisk.

The number in parentheses after an institution's name indicates the number of campuses covered by the same bargaining agent.

Subsequent tables provide the total number of faculty members and campuses nationwide that are represented by faculty bargaining agents, and a list of institutions whose agents were decertified as a result of litigation arising from the 1980 *Yeshiva University* decision. In that case, the Supreme Court ruled that Yeshiva's professors were managerial employees and therefore not entitled to bargaining rights. Most agents were decertified by the National Labor Relations Board, but some voluntarily withdrew their certifications after their campuses initiated litigation.

The center's most recent report is available for $25 from N.C.S.C.B.H.E.P., Baruch College, 17 Lexington Avenue, Box 322, New York 10010; (212) 725-3390.

ALASKA

Prince William Sound CC	AFT

ARIZONA

Pima CC (4)	PCCEA/AEA/NEA

CALIFORNIA

Antelope Valley C	NEA
Barstow CC	CTA/NEA
Butte C	CTA/NEA
Cabrillo C	AFT
Cal St U (19)	CFA/AAUP/NEA
Chabot C (2)	NEA
Chaffey CC	CTA/NEA
Citrus C	CTA/NEA
Claremont C's* librarians (6)	OPEIU
Coast CC Dist (3)	AFT
part-time faculty	NEA
C of the Redwoods	Ind
C of the Sequoias	NEA
Compton CC	AFT
Contra Costa CC Dist (3)	Ind
El Camino CC	AFT
Foothill-DeAnza CC Dist (4)	Ind
Gavilan CC	NEA/CTA
Glendale CC	AFT
Grossmont/Cuyamaca CC Dist (2)	Ind
Hartnell CC	NEA/CTA
Imperial Valley C	NEA/CTA
Kern CC Dist (3)	CTA/NEA
Lassen CC	AFT
Long Beach City C (2)	CTA/NEA
Los Angeles CC Sys (9)	AFT
Los Rios CC Sys (3)	AFT
Marin CC (2)	AFT
Merced C	NEA
Monterey Peninsula CC	NEA
Mount San Antonio C	NEA
Mount San Jacinto C	NEA
Napa Valley C	NEA
North Orange Co CC (2)	NEA
Palo Verde CC	CTA/NEA
Pasadena City C	CTA/NEA
Peralta CC Dist (5)	AFT
Rancho Santiago CC Dist	Ind
Rio Hondo CC	CTA/NEA
Riverside CC Dist	NEA/CTA
Saddleback CC Dist (2)	NEA/CTA
San Bernadino CC (2)	NEA
San Diego CC (3)	AFT
San Diego CC Adult Ed Sys (10)	AFT
San Francisco CC (2)	AFT
San Joaquin Delta C	CTA/NEA
San Jose CC Dist (2)	NEA
San Mateo Co CC Dist (3)	AFT
Santa Barbara CC	Ind
Santa Clarita CC Dist	CTA/NEA
Santa Monica CC	Ind
Shasta C	CTA/NEA
Sierra Joint CC Dist	CTA/NEA
Solano CC	CTA/NEA
Southwestern C	NEA
State Center CC Dist (2)	AFT
Taft C	CTA/NEA
U of California	
Lecturers (9)	AFT
Faculty Santa Cruz	SCFA/AAUP
U of San Francisco*	
Full-time faculty	AFT
Adjunct faculty	AFT
U of San Francisco Law Sch*	Ind
Ventura Co CC Dist (3)	AFT
Victor Valley C	CTA/NEA
West Hills C	NEA
West Valley Mission CC Dist (2)	ACE
Yosemite CC Dist (2)	NEA
Yuba C	NEA

COLORADO

Colorado CC Sys (16)	NEA
Regis C*	AAUP
U of Colorado (4)	AFT

CONNECTICUT

Connecticut CC	
Sys (12)	CCCC/AAUP/NUHHCE
Connecticut St Tech C's (5)	AFT
Connecticut St U Sys (4)	AAUP
Mitchell C*	AFT
Post C*	PCFA
Quinnipiac C*	AFT
U S Coast Guard Acad	AFGE
U of Bridgeport*	AAUP
U of Connecticut (6)	AAUP

DELAWARE

Delaware St C	AAUP
U of Delaware	AAUP

DISTRICT OF COLUMBIA

American U* adjunct faculty	ELIFA
U of the District of Columbia	NEA

FLORIDA

Brevard CC (3)	UFF/NEA
Broward CC (4)	UFF/NEA
Chipola JC	UFF/NEA
Edison CC	AFT
Florida Memorial C*	UFF/NEA
Florida St U Sys (9)	UFF/FTP/NEA
Hillsborough CC (3)	UFF/FUSA/NEA
Indian River CC	AAUP
Palm Beach CC (4)	UFF/NEA
Pensacola JC	UFF/NEA
Saint Leo C*	UFF/NEA

HAWAII

U of Hawaii (9)	UHPA/AAUP/NEA

ILLINOIS

Belleville Area C (3)	AAUP/AFT
Black Hawk C (2)	IFT/AFT
Carl Sandburg C (2)	NEA
City C's of Chicago (8)	AFT
C of DuPage	Ind
C of Lake Co	AFT
Danville Area C	NEA
Highland CC	AFT
Ill Bd of Gov U's (5)	IFT/AFT/UPI
Illinois Central C	Ind
Illinois Eastern CC (4)	NEA
Illinois Valley CC	AFT
John A Logan C	IEA/NEA
Joliet JC	AFT
Kankakee CC	AFT
Kaskaskia C	NEA
Kishwaukee CC	AFT
Lake Land C	AFT
Lewis and Clark CC	IEA/NEA
McHenry Co C	NEA
Moraine Valley CC	AFT
Morton C	AFT
Oakton CC	NEA
Parkland C	Ind
Prairie St C	AFT
Rend Lake C	AFT
Rock Valley C	Ind
Sangamon St U	AFT
Sauk Valley C	NEA
Shawnee CC	NEA
South Suburban C	AFT
Southeastern Illinois C	NEA
Spoon River C	NEA
St CC of East St Louis	IFT/AFT
Triton C	AFT
Waubonsee CC	AFT
William Rainey Harper C	AFT

IOWA

Des Moines Area CC (4)	NEA
Eastern Iowa CC Dist 9 (3)	NEA
Hawkeye Inst of Tech	NEA
Iowa Central CC	NEA
Iowa Lakes CC (2)	NEA
Iowa Western CC	NEA

IOWA—Continued

Kirkwood CC	NEA
Northeast Iowa Tech Inst Area 1 (2)	NEA
Northwest Iowa Tech C Area 4	NEA
Southeastern CC (2)	NEA
Southwestern CC (2)	NEA
U of Northern Iowa	NEA
Western Iowa Tech CC	NEA

KANSAS

Butler Co CC	NEA
Cloud Co CC	NEA
Coffeyville CC	Ind
Colby CC	NEA
Cowley Co CC	NEA
Dodge City CC	Ind
Fort Scott CC	Ind
Garden City CC	NEA
Hutchinson CC	NEA
Independence CC	NEA
Johnson Co CC	NEA
Kansas City Kansas CC	NEA
Labette CC (2)	NEA
Pittsburg St U	NEA
Pratt CC	NEA

MAINE

Me Voc Tech Inst Sys (6)	NEA/MTA
U of Maine Sys (7)	NEA

MARYLAND

CC of Baltimore (2)	AFT
Montgomery C (3)	AAUP
Towson St U	AAUP

MASSACHUSETTS

Becker JC* (2)	AFT
Berklee C of Music*	
Full-time faculty	AFT
Part-time faculty	AFT
Emerson C*	AAUP
Endicott C*	NEA
Laboure C*	NEA
Massachusetts CC	
Sys (17)	NEA/MTA/MCCC
Massachusetts St C's (9)	NEA/MTA
Simon's Rock of Bard C*	AFT
Southeastern Massachusetts U	AFT
Part-time and visiting lecturers	AFT
U of Lowell	MSP/MTA/NEA
U of Mass (2)	MSP/FSU/MTA/NEA
Wentworth Inst of Tech* (2)	AFT

MICHIGAN

Adrian C*	NEA
Alpena CC	NEA
Baker JC of Business*	NEA
Bay de Noc CC	NEA
Central Michigan U	NEA
Detroit C of Business*	NEA
Eastern Michigan U	AAUP
Ferris St C	NEA
Glen Oaks CC	NEA
Gogebic CC	NEA
Grand Rapids JC	Ind
Henry Ford CC (2)	AFT
Highland Park CC	AFT
Jackson CC	NEA
Kalamazoo Valley CC	NEA
Kellogg CC	MEA/NEA
Kendall Sch of Design*	NEA
Kirtland CC	AFT/MFT
Lake Superior St U	MEA/NEA
Lansing CC	NEA
Macomb Co CC (2)	Ind
Mid-Michigan CC	MEA/NEA
Monroe Co CC	NEA
Montcalm CC	NEA
Mott CC	NEA
Muskegon CC	NEA
North Central Michigan C	NEA
Northern Michigan U	AAUP
Oakland CC (4)	NEA/MEA
Oakland U	AAUP
Saginaw Valley St C	NEA
St Clair Co CC	NEA/MEA
Schoolcraft C	MEA/NEA
U of Detroit*	NEA
U of Michigan	
teaching assistants (3)	AFT
Washtenaw CC	NEA
Wayne Co CC (5)	AFT
Wayne St U	AAUP
West Shore CC	MEA/NEA
Western Michigan U	AAUP

MINNESOTA

Minnesota CC Sys (18)	MCCFA/NEA
Minn St U Sys (7)	NEA/IFO/MEA
U of Minn Duluth & Waseca	NEA

MISSOURI

Park C*	AFT
St Louis CC (3)	NEA

MONTANA

Dawson CC	AFT
Eastern Montana C	AAUP
Miles CC	Ind
Northern Montana C	AFT
U of Montana	AFT
Western Montana C	AFT

NEBRASKA

Central CC (3)	CCCEA
Metropolitan Tech CC (3)	NEA

NEBRASKA—Continued

Mid-Plains Tech CC Area (2)	NEA
Nebraska St C's (3)	SCEA/NEA
Southeast CC (3)	Ind
U of Nebraska Omaha	AAUP
U of Nebraska C of Law	Ind
Western Nebraska CC (2)	NEA

NEW HAMPSHIRE

Franklin Pierce C*	AFT
Keene St C	NEA

NEW JERSEY

Atlantic CC	NEA
Bergen CC	NEA
Bloomfield C*	AAUP
Brookdale CC	NEA
Burlington Co C	NEA
Camden Co C	NEA
County C of Morris	NEA
Cumberland Co C	NEA
Essex Co C	NEA
Gloucester Co C	AFT
Mercer Co CC	NEA
Middlesex Co C	AFT
Monmouth C*	AAUP
New Jersey Inst of Tech*	Ind/AAUP
New Jersey St C Sys (9)	
Full-time faculty	AFT
Part-time faculty	AFT
Ocean Co C	NEA
Passaic Co CC	NEA
Raritan Valley CC	AFT
Rider C*	AAUP
Rutgers U (3)	AAUP
Adjunct faculty	AAUP
Salem CC	NEA
Union Co C	AAUP
U of Med & Dentistry of NJ (5)	AAUP

NEW YORK

Adelphi U*	AAUP
Adirondack CC	NEA
Bard C*	AAUP
Broome CC	NYEA/NEA
Cayuga Co CC	NYEA/NEA
City U of NY (19)	PSC/AFT/AAUP
Clinton CC	NYEA/NEA
C of Insurance*	AAUP
Columbia-Greene CC	NYEA/NEA
CC of the Finger Lakes	NYEA/NEA
Cooper Union*	NYSUT/AFT
Cornell U	
labor-relations adjunct faculty	NYSUT
Culinary Inst of America*	Ind
Dowling C*	NYSUT/AFT
Dutchess CC	NEA
D'Youville C*	AAUP
Erie CC (3)	NYEA/NEA

NEW YORK—Continued

Fashion Inst of Tech	AFT
Fordham U Law Sch*	Ind
Fulton-Montgomery CC	NYEA/NEA
Genesee CC	NYEA/NEA
Herkimer Co CC	NYSUT
Hofstra U*	AAUP
Hudson Valley CC	Ind
Jamestown CC	Ind
Jefferson CC	NYEA/NEA
Long Island U Brooklyn*	AFT/NYSUT
Long Island U C of Pharmacy*	AAUP
Long Island U CW Post*	AFT
Adjunct faculty	CWA
Long Island U Southampton*	AFT
Marymount C*	AAUP
Mohawk Valley CC (2)	NYSUT/AFT
Monroe CC	NYSUT/AFT
Nassau CC	NYSUT/AFT
Adjunct faculty	NYSUT/AFT
New York Inst of Tech* (3)	AAUP
New York U Law Sch*	Ind
Niagara Co CC	NYEA/NEA
Niagara U*	Ind
North Country CC (4)	NYEA/NEA
Onondaga CC	NYSUT/AFT
Orange Co CC	NYEA/NEA
Pratt Inst* (2)	AFT
Rockland CC	NYSUT/AFT
St John's U* (2)	AAUP/Ind
Schenectady Co CC	NYEA/NEA
St U of New York (30)	UUP/AFT
Suffolk Co CC (3)	NYSUT/AFT
Sullivan Co CC	NEA
Taylor Business Inst*	AFT
Tompkins-Cortland CC	NYEA
Trocaire C*	Ind
Ulster Co CC	NYEA/NEA
U S Merchant Marine Acad	AFGE
Utica C of Syracuse U*	AAUP
Westchester CC	NYSUT/AFT

OHIO

Central St U	AAUP
Cuyahoga CC Dist (3)	AAUP
Dyke C*	AFT
Edison St C	NEA
Hocking Tech C	OEA/NEA
Jefferson Tech C	NEA
Kent St U (8)	AAUP/NEA
Lakeland CC	NEA
Northwest Tech C	NEA
Rio Grande C & CC*	Ind
Shawnee St U	NEA
Southern St CC (3)	NEA
Terra Tech C	NEA
U of Cincinnati (4)	AAUP
Wilberforce U*	AAUP
Youngstown St U	NEA

Continued on Page A16

Key to Abbreviations

AAUP	American Association of University Professors
ACE	Association of Certified Educators
AEA	Arizona Education Association
AFGE	American Federation of Government Employees
AFT	American Federation of Teachers
APSCUF	Association of Pennsylvania State College & University Faculties
CCCC	Congress of Connecticut Community Colleges
CCCEA	Central Community College Education Association
CFA	California Faculty Association
CTA	California Teachers Association
CWA	Communication Workers of America
ELIFA	English Language Institute Faculty Association
FTP	Florida Teaching Profession
FUSA	Faculty United Service Association
GFT	Guam Federation of Teachers
IEA	Illinois Education Association
IFO	Inter-Faculty Organization
IFT	Illinois Federation of Teachers
IND	Independent
LCCFA	Lower Columbia College Faculty Association
MCCC	Massachusetts Community College Council
MCCFA	Minnesota Community College Faculty Association
MEA	Michigan Education Association
MEA	Minnesota Education Association
MFT	Michigan Federation of Teachers
MSP	Massachusetts Society of Professors
MTA	Maine Teachers Association
MTA	Massachusetts Teachers Association
NEA	National Education Association
NUHHCE	National Union of Hospital and Health Care Employees
NYEA	New York Educator's Association
NYSUT	New York State United Teachers
OEA	Ohio Education Association
OEA	Oregon Education Association
OFT	Oregon Federation of Teachers
OPEIU	Office of Professional Employees International Union
PCCEA	Pima Community College Education Association
PCFA	Post College Faculty Association
PSC	Professional Staff Congress
SCEA	State Colleges Education Association (Nebraska)
SCFA	Santa Cruz Faculty Association
SEIU	Service Employees' International Union
TAA	Teaching Assistants Association
UFF	United Faculty of Florida
UHPA	United Hawaii Professional Assembly
UPI	United Professionals of Illinois
UUP	United University Professions
WEA	Washington Education Association
WEA	Wisconsin Education Association
WFT	Wisconsin Federation of Teachers

FACT FILE—Continued

OREGON

Blue Mountain CC	NEA
Central Oregon CC	Ind
Chemeketa CC	NEA/OEA
Adjunct faculty	NEA/OEA
Clackamas CC	NEA/OEA
Clatsop CC	NEA
Lane CC	NEA
Linn-Benton CC	Ind
Mount Hood CC	
Full-time faculty	Ind
Part-time faculty	OEA
Portland CC (3)	OFT/AFT
Part-time faculty	OFT/AFT
Portland St U	AAUP
Part-time faculty	AFT
Rogue CC	NEA/OEA
Southern Oregon St C	Ind
Southwestern Oregon CC	AFT
Treasure Valley CC	NEA
U of Oregon grad teaching fellows	AFT
Western Oregon St C	AFT
W Sts Chiropractic C*	Ind/AFT

PENNSYLVANIA

Bucks Co CC	AFT
CC of Allegheny Co (4)	AFT
CC of Beaver Co	NEA
CC of Philadelphia	AFT
Adjunct faculty	AFT
Delaware Co CC	NEA
Lackawanna JC*	NEA
Lehigh Co CC	NEA
Lincoln U	AAUP
Luzerne Co CC	NEA
Montgomery Co CC	AFT
Moore C of Art*	AFT
Northampton Co Area CC	AFT
Pa St Sys of Higher Education (14)	APSCUF/AFT
Reading Area CC	AFT
Robert Morris C*	AFT
Spring Garden C*	AFT
Temple U (3)	AAUP/AFT
Temple U Law Sch	Ind
U of Pittsburgh Medical Sch	Ind
U of Scranton*	Ind
Westmoreland Co CC	NEA
Williamsport Area CC (2)	NEA

RHODE ISLAND

Bryant C*	AFT
CC of Rhode Island (2)	NEA
Rhode Island C	AFT
Rhode Island Sch of Design*	NEA
Adjunct faculty	NEA
Roger Williams C* (2)	NEA
U of Rhode Island	AAUP

SOUTH DAKOTA

National C of Business*	NEA
South Dakota Bd of Regents Sys (6)	NEA

VERMONT

Vermont St C's (4)	AFT
Adjunct faculty	AFT

VIRGINIA

Marymount U*	AAUP

WASHINGTON

Bellevue CC	NEA
Big Bend CC	WEA/NEA
Centralia C	AFT
Clark C	NEA
Columbia Basin CC	WEA/NEA
Edmonds CC	AFT
Everett CC	AFT
Fort Steilacoom CC	SEIU
Grays Harbor C	NEA
Green River CC	AFT/NEA
Highline CC	NEA
Lower Columbia C	LCCFA
Olympic C	NEA
Peninsula C	NEA/WEA
Seattle CC Dist 6 (3)	AFT
Shoreline CC	AFT
Skagit Valley C (2)	NEA
South Puget Sound CC	AFT
Spokane Falls CC Dist 17	NEA
Tacoma CC	AFT
Walla Walla CC (2)	NEA
Wenatchee Valley C	NEA
Whatcom CC	AFT
Yakima Valley CC	AFT

WISCONSIN

Blackhawk Voc Tech C	AFT/WFT
Chippewa Valley Tech C (3)	WEA/NEA
Fox Valley Tech Inst (2)	NEA
Gateway Tech C (4)	WEA/NEA
Lakeshore Tech C	NEA/LEA
Madison Area Voc Tech C (5)	AFT
Mid-State Tech C (3)	NEA
Milwaukee Area Tech C (4)	AFT
Moraine Park Tech Inst (3)	AFT
North Central Tech Inst (2)	NEA
Northeast Wisconsin Tech C (3)	NEA
Northland C*	Ind
Southwest Wisconsin Tech C	AFT
U of Wisconsin Madison teaching assistants	TAA/AFT
Waukesha Co Tech C (3)	NEA
Western Wisconsin Tech Inst	AFT
Wis Indianhead Voc Tech Adult Education Dist (4)	AFT

GUAM

U of Guam	GFT/AFT

Faculty and Campuses Represented by Certified Bargaining Agents

Faculty

	AAUP	AFT	NEA	IND	Other	Total
Public						
4-year	19,007	38,873	20,880	1,773	52,542	133,075
2-year	846	34,369	39,183	8,916	1,816	85,130
Private						
4-year	3,073	2,628	826	415	934	7,876
2-year	180	364	93	157	0	794
All	23,106	76,234	60,982	11,261	55,292	226,875

Campuses

	AAUP	AFT	NEA	IND	Other	Total
Public						
4-year	38	120	74	24	95	351
2-year	18	163	328	43	39	591
Private						
4-year	19	21	11	8	11	70
2-year	4	5	4	2	0	15
All	79	309	417	77	145	1,027

Campuses Whose Agents Have Been Decertified as a Result of Yeshiva Litigation

	Agent	Year
Catholic U of America*	Ind	1980
Yeshiva U*	Ind	1980
Mount Vernon College*†	AAUP	1981
Salem College*	NEA	1981
U of Albuquerque*	AFT	1981
Ashland College*†	AAUP	1982
Curry College*†	AAUP	1982
Daemen College*†	AAUP	1982
Drury College*†	AAUP	1982
College of Osteopathic Medicine & Surgery*	AFT	1982
Ithaca College*	AFT	1982
Stevens Inst of Tech*	AAUP	1982
Thiel College*	AAUP	1982
Wagner College*	AFT	1982
Ohio Northern U*	NEA	1983
Seton Hall U*	AFT	1983
Stephens College*	AFT	1983
U of New Haven*	AFT	1983
Boston U*	AAUP	1984
Polytechnic Inst of NY*	AAUP	1984
Lewis U*	Ind	1985
Fairleigh Dickinson U*	AAUP	1987
U of Dubuque*	NEA	1988

† Union voluntarily withdrew certification

New Computer Software

The following list of computer software has been compiled from information provided by the publishers or by companies marketing the programs. Prices are subject to change without notice. For information about specific applications and hardware requirements, contact the publishers or companies directly.

ACADEMIC COMPUTING

Aeronautical engineering. "CAMRAD: Comprehensive Analytical Model of Rotorcraft Aerodynamics," for DEC VAX running VMS 4.6. Core memory of 4.04 megabytes recommended. Requires DISSPLA package for graphical output. Helps calculate rotor performance, loads, and noise, helicopter vibration and gust response, flight dynamics and handling qualities, and system aeroelastic stability; can be applied to articulated, hingeless, gimballed, and teetering rotors with an arbitrary number of blades; $3,000; academic discounts available. Contact: Cosmic, University of Georgia, 382 East Broad Street, Athens, Ga. 30602; (404) 542-3265.

Biology. "Breeding Bird Survey Data Simulation," for Apple II series, Apple Macintosh, and I.B.M. PC and PS/2 series and compatibles. Simulated data follow relationships taken from the 1965-79 Breeding Bird Surveys sponsored by the U.S. Fish and Wildlife Service and the Canadian Wildlife Service; population trends for 50 bird species are simulated; $69.95; quantity discounts available. Contact: Oakleaf Systems, P.O. Box 472, Decorah, Iowa 52101; (319) 382-4320.

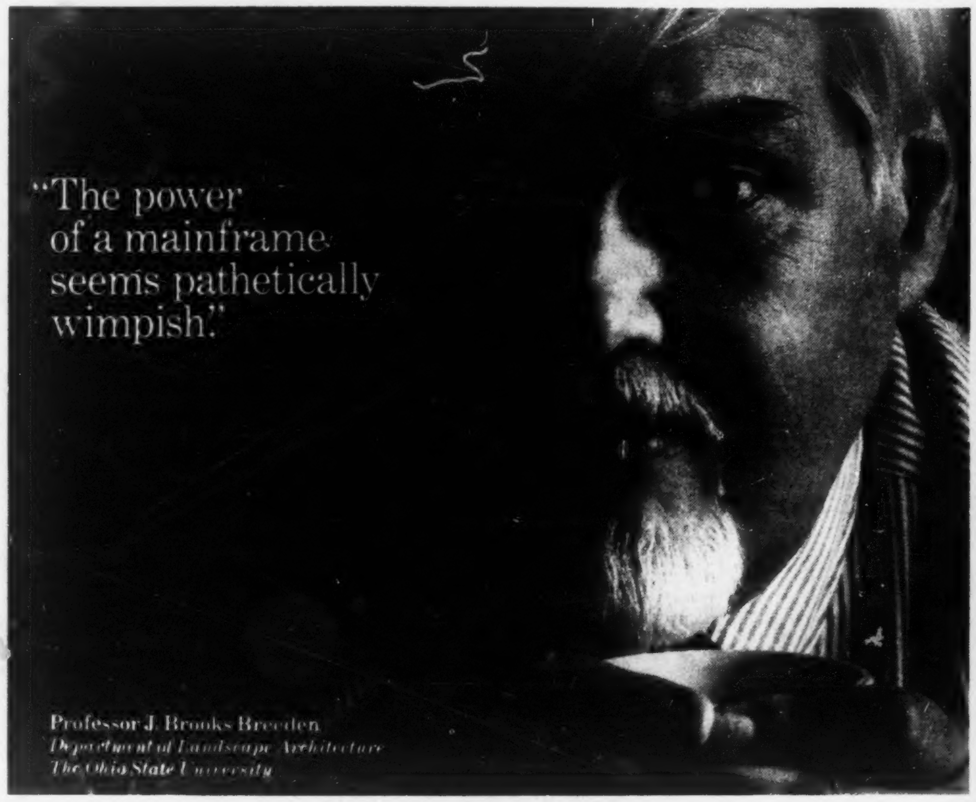
Business. "@Risk, Version 1.5," for I.B.M. PC series and compatibles. Requires "Lotus 1-2-3." Software uses probability distributions and simulation techniques to evaluate uncertain spread-sheet models; allows user to enter ranges of values to any spread-sheet cell; Monte Carlo simulations tell the probability of any outcome occurring; $395; academic discounts, site license, and student prices available. Contact: Palisade Corporation, 2189 Elmira Road, Newfield, N.Y. 14867; (800) 432-7475 or (607) 564-9993.

Communications. "Gateway," for DEC VAX using VMS 4.7. Provides process-to-process communication between remote applications programs in different protocol domains; communicating peer processes may be used on any paired combination of NETEX, DECnet, or TCP/IP hosts; $3,000; documentation, $18; academic discounts available. Contact: Cosmic, University of Georgia, 382 East Broad Street, Athens, Ga. 30602; (404) 542-3265.

Ecology. "Aquatic Ecology-PC," for I.B.M. PC and PS/2 series and compatibles. Seven programs perform calculations in aquatic ecology such as diversity indices, Hynes/Hamilton production, stream flow and current velocity, and lake morphometry; $59.95; quantity discounts available. Contact: Oakleaf Systems, P.O. Box 472, Decorah, Iowa 52101; (319) 382-4320.

ADMINISTRATIVE COMPUTING

Counseling. "The Electronic LASSI: Learning and Study Strategies Inventory," for Apple II series and I.B.M. PC and PS/2 series and compatibles. Electronic version of the paper tests that diagnose study skills; automatically scored, providing graphs of each student's "study-strategies profile," an alphabetical list of students who take the tests, and the percentile ranks of those students; $5 a disk, plus $2 a test for up to 99 tests, $1.75 a test for up to 299 tests, and $1.50 a test for 300 or more tests. Contact: H&H Publishing Company, 1231 Kapp Drive, Clearwater, Fla. 34625; (813) 442-7760.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News Summary

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Field tests of genetically engineered organisms are increasing as public opposition to the experiments fades: Page A4.

An anthropologist at Vanderbilt U. is digging in Guatemala for clues to the collapse of the ancient Mayan Indian civilization: Page A4.

A skydiving professor puts his love of the sport to use in the classroom and in fighting stress: Page A15.

Two developments have once more led critics of federal science policy to ask: Why can't lawmakers set priorities for science spending less haphazardly?: Page A19.

A federal court ordered a sweeping restructuring of Louisiana's higher-education system: Page A19.

The presidents of the Robert Wood Johnson and General Electric Foundations have announced they will step down: Page A25.

The head of the Exxon Education Foundation was chosen as the new president of the Council for Aid to Education: Page A25.

Two students are leaving Alvernia College because administrators refused to allow them to print an article in the student newspaper: Page A29.

Delegates at a meeting of Spain's university business managers urged the government to raise tuition at the country's 31 public universities: Page A31.

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Irked by Sluggish Pace of Sports Reform, Some Presidents Move to Speed Change

They move to create a national panel similar to Carnegie Commission

By DOUGLAS LEDERMAN

Troubled by the threat of Congressional intervention and frustrated by the sluggish pace of reform efforts in the National Collegiate Athletic Association, some college presidents and higher-education officials are seeking new ways to stimulate change in college sports.

The most sweeping proposal being considered is the creation of a national commission on college sports, which could be comparable in form if not scope, its supporters said, to the groundbreaking Carnegie Commission on Higher Education in the 1960's. A group of presidents and higher-education officials are now courting foundation support for such a venture.

"We need to make some substantial structural changes in our sports programs or we're going to wind up being regulated by the Congress, and then we'll really be in a mess," said Eamon M. Kelly, president of Tulane University.

Mr. Kelly, like most other higher-education officials interviewed, declined to discuss details of the proposed national sports commission.

The national-commission approach and others are being pursued as a way to deal with growing public skepticism about the integrity of big-time college sports and to revitalize the movement to reform sports, which many presidents and other educators agree has slowed to a crawl in the last few years.

'Emerging From a Time of Study

They say that while the N.C.A.A. presidents' commission made immediate and significant progress in helping to promote tougher academic standards and punish wrongdoers after being established in the mid-1980's, it has become paralyzed in the last two or three years by a lack of consensus over financial issues and a tendency to overstudy, rather than act.

"We needed to study the big issues, and we've done it," said Edward T. Foote, II, president of the University of Miami. "We're now emerging from a time of study to a time where there must be, and I think will be, more action. I don't think we have to study any more to know we need to make major cost cuts."

Mr. Kelly and other reform-minded

Continued on Page A30

Betting on NFL Games to Aid Ore. College Sports

SALEM, ORE.

Oregon will introduce a controversial lottery game this fall that officials hope will direct about $8-million a year to the state's financially strapped college sports programs. The decision by the five-member Oregon State Lottery Commission ended a long and very public campaign to win the sports programs more state support.

The new game, which has been criticized as "legalized gambling" because it permits betting on National Football League games, is expected to raise $65-million over two years.

About $16-million of that—or $8-million a year—would go to the sports programs that now receive little financial support from the state. Most of that money will support programs at the major public universities, Oregon State University and the University of Oregon, and at Portland State University, which has delayed a move to the National Collegiate Athletic

Continued on Page A30

National Board Sets Guidelines for Teacher Certification

A national board on teaching standards has issued guidelines for certifying schoolteachers: Page A15.

Expected Faculty Shortages

Percentage of institutions expecting faculty shortages in the next five years, by discipline

Arts and humanities	11%
Biological sciences	17
Business	38
Computer science	49
Education	10
Engineering	18
Foreign languages	16
Health professions	26
Mathematics	36
Physical sciences	27
Social sciences	8
Vocational-technical fields	18

SOURCE: AMERICAN COUNCIL ON EDUCATION

Campus Trends: See story and table on Page A27.

College Officials Worry That Congress Will Cut Student-Aid Programs

By THOMAS J. DeLOUGHRY

WASHINGTON

College officials here worry that next year's federal budget, which they thought would be a good one for higher education, may contain only small increases or even cuts in some student-aid programs.

They found cause for concern last week at the Education Department as well as on Capitol Hill, where lawmakers are working to adopt a budget before the 1990 fiscal year begins on October 1.

In Congress the bad news came in the form of leaks from the House appropriations subcommittee responsible for education spending.

The subcommittee reportedly cut some student-aid programs and froze spending on others as a way to send a message to colleges and proprietary schools that the panel would not tolerate continued high default rates on guaranteed loans and fraud

Continued on Page A24

Students Use Summer Internships to Gather Experience for Future Jobs

© 1989 TONY DUGAL, FOR THE CHRONICLE

By MICHELE N-K COLLISON

WASHINGTON

To the 3M Company, the General Motors Corporation, and the General Electric Company, Benita D. Melton is a hot commodity. Ms. Melton, who will be a senior this year at Michigan State University, is a finance major with good grades and two internships already under her belt. Although all three companies offered her internships this summer, Ms. Melton chose to work at General Electric's Capital Credit Corporation because of its reputation as a top-notch financial-services company.

"A lot of people think that grades help you get a job," says Ms. Melton, who is spending the summer packaging loans to be sold as securities. "But people who don't have experience or outside interests don't have any leadership or management skills. You can't help but make yourself more marketable after an experience like this."

Ms. Melton hopes her experience this summer will help her get a job with General Electric or another large corporation after she graduates next spring.

Like Ms. Melton, more and more career-savvy students are shunning such tradi-

Continued on Page A28

Benita D. Melton: "People who don't have other interests don't have leadership skills. You can't help but make yourself more marketable after an experience like this."

MARGINALIA

Classified ad in the Redlands (Cal.) *Daily Facts*:

"COLLEGE STUDENT will tudor grades 1-10, in most subjects. Ask for Susan."

Hi, Susan, this is Mom and Dad. Can you teach our kid to spell?

■

From an internal memorandum at Memphis State University:

"The Personnel Department will present and/or sponsor the following training seminars on the dates indicated:

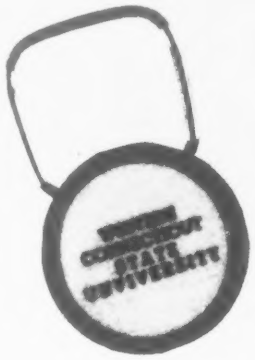
July 20, 1989—Oral and Non-Verbal Communications: Dr. Lillian Chaney, Associate Professor in Management, will cover proper use of the telephone, correct articulation and pronunciation, suggestions for a short presentation, communications with body language, i.e. posture, eye contact, and other body jesters."

How about good eating habits, with lots of vitamins and minstrels?

■

Oops!

Here's a key ring from the alumni association of Western Connecticut State University:



■

Anne S. McNutt, the president of Technical College of the Lowcountry in Beaufort, S.C., has received a brochure addressed as follows:

ATTN: President/Owner
South Carolina State of

■

Programmer, heal thyself (from an ad for Editor's Choice Software):

"You don't have to be a Hemmingway to create clear, precise, effective writing. Because now there's Grammatik III—the state-of-the-art software that analyzes your writing and suggests ways to improve. . . ."

■

School Improvement News, a publication of the Michigan State Board of Education, has listed the characteristics of at-risk children. One is a "destructive or violent temperment." —C.G.

In Brief

Graduate Students at MIT Criticize Provost

CAMBRIDGE, MASS.

Graduate students at the Massachusetts Institute of Technology have issued a report criticizing the institution's provost for improperly using his connections with the Department of Defense to funnel research grants to M.I.T.

In their report, the students also say that the provost, John Deutch, had increased M.I.T.'s already heavy reliance on such grants to the detriment of the institution as a whole.

The 16-page report was issued by the members of the Science Action Coordinating Committee, a graduate-student group. The report accused Mr. Deutch of using his position on the Defense Science Board to recommend increased spending on mycotoxin research, then taking advantage of this "inside information" to encourage an M.I.T. faculty member to apply for a grant to study mycotoxins, which are poisons produced by fungi. The board advises the Department of Defense on research policy.

The students also asserted that Mr. Deutch had stymied the work of a committee studying the impact of military-research grants on educational policy at M.I.T.

Mr. Deutch called the students' allegations "foolish." Mr. Deutch is viewed as a possible successor to Paul E. Gray, M.I.T.'s current president, who will step down next year. —ZOE INGALLS

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John Deutch: Students' charges that he improperly used connections with the Defense Dept. are "foolish."

Require Language Study, Council Urges Colleges

WASHINGTON—In an effort to bring national attention to what it sees as a need for greater foreign-language skills, the American Council on Education has called on colleges and universities to require all undergraduates to gain competency in foreign languages.

The recommendation is included in a report—to be released next month by the council's Commission on International Education—that sets broad goals for improving language education at all levels by 2000.

The commission—made up of 29 college presidents and administrators—also urges colleges to collaborate with elementary and secondary schools to improve foreign-language proficiency.

Experts in foreign-language education praised the recommendations on the whole, saying the report would lend credence to existing efforts to improve proficiency in foreign languages and would lead to new programs.

Patent Literature Stolen From University Libraries

WASHINGTON—Thieves evidently seeking to create their own library of patent literature have stolen up to 200 reels of patent microfilms from 12 university research libraries in 10 states. The libraries all participate in the U.S. Department of Commerce's Patent Depository system, which makes patent information available to researchers.

The thieves took the microfilm reels, valued at more than $150,000, over a three-week period beginning in late June. The Patent Office found little overlap in the stolen reels, suggesting a sophisticated coordination of the theft.

Under the Patent Depository system, the government provides the microfilms to the participating libraries. Because the microfilm is government property, the Federal Bureau of Investigation is handling the case.

The Association of Research Libraries said thefts of patent literature were reported by the Universities of Idaho, Maryland, Massachusetts, Michigan, New Mexico, Texas, and Utah; Georgia Institute of Technology; and Ohio State, Rice, Texas A&M, and Virginia Commonwealth Universities.

Storm Causes Damage of $4-Million to Campus

NEW HAVEN, CONN.—Summer-session classes at Southern Connecticut State University were canceled for four days this month after a severe windstorm and heavy rains damaged all of the campus's 22 buildings.

Repairs are expected to cost more than $4-million, according to William R. Bowes, vice-president for administrative affairs. Two buildings were damaged extensively and the campus lost 193 trees.

One student broke his ankle in the storm.

The class schedule is being modified to make up for the lost time.

Student Arrested After Hammer Attack

WASHINGTON—A graduate student at George Washington University was arrested after allegedly going on a hammer-wielding rampage through a university library last week.

Yemane Woldemichael, a graduate teaching fellow in mathematics, allegedly injured four people—one seriously—with a ball-peen hammer before being stopped by a university security guard. Three of the victims, two of whom were employed by the university, received minor injuries. The fourth was admitted to the university hospital in fair condition with a fractured skull.

Colgate Trustees to Study Campus Residential Life

HAMILTON, N.Y.—The trustees of Colgate University last week announced the formation of a special committee to review campus residential life, particularly the "role, structure, and function" of fraternities and sororities.

The committee is a response to a recommendation from Colgate faculty members that fraternities and sororities on the campus be abolished by 1994-95. The faculty members voted to urge the trustees to abolish the Greek system last spring, shortly after the theft of diaries from a campus fraternity, Delta Kappa Epsilon, which described incidents of illegal drug use, hazing, and sexual assaults.

The trustee committee will issue a report in six months to a year.

The university also announced that Delta Kappa Epsilon would be suspended for the 1989-90 academic year for hazing and other violations of university policy.

The fraternity will be barred from participating in intramural activities, from sponsoring parties, and from meeting as an organization. During the term of the suspension, the fraternity house will be closed.

Fight at Berkeley Dance Leads to 15 Arrests

BERKELEY, CAL.—A fight at a campus dance erupted into a mêlée at the University of California at Berkeley, after which some members of a crowd that was dis-

U. of California Eyes 'Systemwide' Hazardous-Waste Disposal

OAKLAND, CAL.

Prompted by rapidly increasing costs, the University of California system is financing a $3-million study to develop an economical approach for handling hazardous wastes generated by its campuses.

California officials believe the project, which got under way this summer, may be the first such effort undertaken by an entire university system.

In the past, each of U.C.'s nine campuses and other research centers was independently responsible for insuring that hazardous substances from its laboratories, physical plant, and teaching facilities were handled and disposed of properly.

By taking a "systemwide" approach to managing hazardous materials, officials hope to control costs better, said David F. Belk, associate director of the university's hazardous materials management program.

The costs to the university of handling hazardous materials began increasing "noticeably and dramatically" about three or four years ago, Mr. Belk said. "The costs were doubling and tripling on an annual basis," he said. Currently, the system spends between $6-million and $10-million a year on waste disposal, he added.

3 Consulting Firms Hired

Three environmental consulting firms have been hired by the university to conduct the study and issue recommendations over the next 18 months, Mr. Belk said.

Besides looking at the nine campuses, the consultants also will study wastes produced by the university's medical centers, agricultural field stations, and other research facilities such as the Scripps Institution of Oceanography and the Lawrence Berkeley Laboratory.

The campuses and research centers generate hazardous materials ranging from asbestos to laboratory chemicals to radioactive wastes. Among other tasks, the companies are expected to recommend "economical and environmentally sound" ways for the university system to store, treat, and dispose of those substances.

In addition, the consultants intend to develop an inventory system for keeping track of hazardous chemicals on the campuses from the point of purchase to the point of disposal. The companies also will recommend ways to reduce the amount of hazardous wastes produced in the first place.

The study is only the first phase of the effort to design a university-wide approach to hazardous-materials management.

In the second phase, Mr. Belk said, the university system will discuss the study's recommendations and the consultants will provide more concrete information on the costs of their proposals. The third phase will involve carrying out the recommendations, he said. —DENISE K. MAGNER

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Note Book

Two college marching bands from the United States performed in Paris this month in celebrations of the bicentennial of the French Revolution.

Jacques Chirac, the Mayor of Paris, invited Indiana University of Pennsylvania's marching band to perform at Paris City Hall during festivities to salute America's contributions to France. The university band also performed at the Tuileries and the Louvre.

Mr. Chirac selected the Pennsylvania band after viewing a videotape of one of its performances, said Bill Swauger, director of news services for the university.

The university's Indian Marching Band is famous for its formations and for its emphasis on trumpets. About 165 of the band's 200 members—who wear crimson and grey uniforms—traveled to France. In addition, band directors from several Pennsylvania high schools who are alumni of the university band made the trip.

■

The Marching 100 from Florida A&M University also performed in Paris during this summer's bicentennial festivities.

The band—which marched in the Bastille Day parade—performed a medley of James Brown songs, including "Living in America," "I Feel Good," and "Cold Sweat." Florida A&M is a historically black institution, and its band's members are renowned for their version of the moonwalk—a backward, sliding dance motion—created by Michael Jackson, the pop singer.

The band was invited to march in the parade by Jack Lang, France's Minister of Culture. William P. Foster, director of the Marching 100, said the band's role in the parade was to portray black American soul music.

■

Sixteen high-school students from the Soviet Union and 45 from Virginia are studying each other's language and culture through a 24-day exchange program at James Madison University. The Soviet and American students are in the same music and dance classes but they are taking separate English- and Russian-language courses.

To cap off the program, the Soviet students will spend a week in the homes of the American students.

The program was started last summer as one of the "cultural initiatives" that resulted from the May 1988 summit in Moscow between President Reagan and President Mikhail Gorbachev.

James Madison is sponsoring the program because Elizabeth B. Neatrour, co-director of the university's department of Asian and Russian studies and director of the summer program, has been involved in projects that have brought together Soviet and American high-school teachers.

Students

8 in 10 Colleges Have Plans to Boost Minority Presence

But two-thirds rate their ability to do so as only 'fair' or 'poor'

By DENISE K. MAGNER

WASHINGTON

The vast majority of colleges are attempting to increase the presence of minority students on their campuses, a survey has found.

Despite their intentions, nearly two-thirds of the institutions surveyed rate their ability to attract black and Hispanic students as only fair or poor.

The results of the survey, conducted by the American Council on Education, are detailed in a report called "Campus Trends, 1989." Senior administrators at nearly 370 institutions responded to the survey, which has been conducted annually since 1984.

This year, for the first time, the survey asked detailed questions about minority participation in higher education. The wide-ranging survey also asked administrators about the current faculty in light of the predicted future shortage of professors and about the nationwide movement to assess the educational achievements of colleges and universities.

> **"Colleges are focusing on enrolling more minority students, but less on the fact that the climate has to be hospitable if you expect [them] to graduate."**

Elaine El-Khawas, vice-president for policy analysis and research who conducts the survey at the council, said the results about minority issues on college campuses were somewhat disappointing.

"Colleges are focusing on enrolling more minority students," she said, "but much less on the fact that the climate of the campus has to be hospitable if you expect minority students to graduate. And the campus has to have more minority professors if you expect the climate to be good."

Eight in 10 colleges reported efforts were under way on their campuses to increase the enrollment, retention, and graduation of undergraduate minority students, the report said.

Effectiveness Questioned

Reginald Wilson, senior scholar at the council, said administrators might perceive a lot of activity to boost minority enrollment, but they shouldn't confuse being busy with being effective. "Their self-perception is a little more optimistic than the reality. We're not seeing, from the numbers, any dramatic change in enrollment of minority students."

He added: "Although the 1987 enrollment of blacks and Hispanics showed a slight increase—stopping a decade-long slide—it was an extremely modest increase and nothing to rave about."

The extent of effort differed from one

Continued on Following Page

Survey of Campus Trends, 1989

MINORITY ISSUES

Campus activites to increase minority participation:

	A lot	Some	None
Increase undergraduate enrollment of minority students	32%	51%	17%
Increase graduate enrollment of minority students	20	44	34
Expand financial support for minority students	24	55	22
Increase retention of minority students	42	43	15
Increase completion rates of minority students	38	46	16
Improve campus climate for minority students	32	51	17
Hold festivals or other events to "celebrate" racial and ethnic diversity	29	43	28
Increase number of minority faculty members	31	48	21
Assist minority faculty members in meeting tenure and promotion requirements	17	44	38
Increase number of senior administrators from minority backgrounds	14	39	47

Campus actions to monitor and improve minority participation:

	Yes	Being discussed	No
Monitor minority student attrition each term	54%	15%	30%
Compile figures on completion rates for minority students	56	11	33
Compare minority representation among your students to minority representation:			
Among the population you serve	57	16	27
In the surrounding community	50	15	35
Hold annual workshops to increase racial/cultural awareness among:			
Students	37	15	47
Faculty	31	20	49
Staff and administrators	30	23	47
Offer incentives to academic departments to increase hiring of minority faculty members	17	11	71
Plan a major increase in spending for improving minority participation	15	21	64
Operate under a board-adopted policy with specific goals for increasing minority participation	37	7	57

Administrators' views of minority issuas:

	High	Medium	Low
Level of support for improving minority participation at your institution:			
Today	32%	55%	13%
Ten years ago	10	39	51
Overall campus commitment to minority advancement:			
Today	41	47	11
Ten years ago	12	45	43
Degree of tension among racial/ethnic groups on campus:			
Today	2	18	80
Ten years ago	1	22	76
Degree of coordination among support services for minority students	3[illegible]	46	19
Degree of confidence among senior administrators that greater gains can be made on this campus in advancing minorities	38	51	11

Administrators' views of campus climate for minority students *:

	Excellent or very good	Fair or poor
Ability to attract black students	14%	60%
Ability to attract Hispanic students	11	67
Supportive climate for black students	26	40
Supportive climate for Hispanic students	21	43

FACULTY ISSUES

Faculty planning and hiring patterns:

	Yes
Institution has systematic faculty planning	32%
In the next five years, institution expects to:	
Increase the pace of hiring for full-time faculty positions	55
Decrease the size of its faculty	20
Institution makes extensive use of a part-time faculty	45

Faculty retirement patterns and practices:

	Yes
Institution has:	
Incentives for early retirement	37%
Phased retirement for faculty	19
Mandatory retirement age for faculty	39
Institution is currently revising its faculty-retirement plan	27
Institution expects an increased pace of retirements among full-time faculty during the next five years	50
The lifting of the mandatory retirement age will cause problems for this institution	18

* Excludes those reporting 'good.'

Note: The figures are based on responses to a survey sent to senior administrators at 456 colleges and universities in the spring of 1989. The response rate to the survey was 80 per cent. The responses to questions on minority issues exclude historically black colleges.

SOURCE: AMERICAN COUNCIL ON EDUCATION

Students Use Summer Internships to Gather Experience for Future Jobs

Continued from Page A1

tional summer jobs as camp counselor or sales clerk and using the time to explore career options and strengthen their résumés, say college career-planning directors.

"Students are getting away from going home and being lifeguards," says John P. Carvana, director of career planning and placement at Emory University. "They are trying to gain employment in careers consistent with their majors."

Colleges, meanwhile, are beginning to establish special programs to help students land summer internships. And corporate officials, worried about dire predictions of declining numbers of college graduates, are creating such positions to attract students as future employees. Like the three companies that courted Ms. Melton, many corporations are competing heavily for particularly bright students.

"We get to take a look at a future employee over a three-month period," says Sterling C. Gatling, placement supervisor for the research and development division at the Dow Chemical Company. "You get information you can't possibly get from a college transcript." Dow is employing 368 students as interns this summer.

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Ira D. Glasky with Sen. Pete Wilson: "A lot of people do grunt work and never get to see their Senator or Congressman."

Identifying Prospects Early

Traditionally, college juniors have been in the highest demand for internship positions. But that is changing as companies seek to identify talented students as early as their senior year in high school.

"More companies are finding it beneficial to provide internships," says Billy Dexter, assistant director of career planning and placement at Michigan State University. "They are starting to have to compete with other companies for quality students, so they are trying to identify students early and provide them with internships in the hope that they will come to work for them when they graduate."

Student interns at major corporations typically are paid well, with business and science majors commanding $10 to $15 an hour and liberal arts students earning from $8 to $12 an hour, say students and college officials.

The story is different for students interested in working for government agencies or non-profit organizations. Such students typically earn much less for summer work than do those employed by big companies. As a result, colleges are offering grants to students to encourage them to take summer jobs in public-service fields.

For example, several corporations have given money to Duke University to help it subsidize the salaries of students working for such non-profit organizations as the North Carolina Rural Health Coalition and the Good Shepherd Ministry, a church-affiliated organization in Washington that provides care for children of low-income families. This year the university is helping to pay the salaries of 50 students.

Public-Service Program

Jeff Bray, a senior at the University of Notre Dame, is working this summer for Environmental Action Inc., a non-profit group that lobbies Congress on environmental issues. He received $2,000 for his living expenses from Notre Dame's Hesburgh Program in Public Service, a year-round program that encourages students to study and pursue careers in public service.

Until recently, students had to hustle to get information about summer internships. "A few programs were run out of academic departments, or students would have to spend a lot of time poring over thick binders of internship information," says Larry H. Simpson, director of career planning and placement at the University of Virginia.

That is beginning to change at the urging of employers, Mr. Simpson says.

Some colleges and universities have even established programs to match students with employers.

"Students are coming to college as consumers," says Caroline A. Nisbit, director of one such program at Duke University called Duke Futures. "They want a good education, but they also want to be able to compete in the job market." The program matched 55 students with internships in 1986, its first year. This summer the program helped 225 students find internships.

Some students are finding that internships themselves have helped them land other summer work later on. Ira D. Glasky, a senior at the University of Southern California, says he got his job in the office of Sen. Pete Wilson, Republican of California, through his contacts in the California Republican Party, with which he had an internship in Los Angeles last year.

In politics, Mr. Glasky says, such connections are particularly helpful. "You've got to get in somehow, because Congressmen and Senators tend to hire from within."

As corporations and colleges devote more attention to developing internships for students, the image of college interns' spending the summer copying documents and fetching coffee also is changing.

"If you offer a gofer job, it will get on the student grapevine," says David B. Small, assistant vice-president for career services at the University of Houston. "The reputation of a company can rise or fall on the basis of its summer internships."

Still, some student interns do their share of filing papers and other menial work. Mr. Glasky of the University of Southern California says he is one of the lucky interns on Capitol Hill because he has had a lot of contact with Senator Wilson. "A lot of people do grunt work and never get to see their Senator or Congressman," he says. "They'll be lucky to see him walk down the hall."

> **"We get to take a look at a future employee over a three-month period. You get information you can't get from a transcript."**

Some Companies Offer Perks

In addition to insuring that the work their interns do is significant, many corporations are beginning to offer perquisites to attract students.

Some corporations hold banquets, where interns can meet top company officials. Others offer, in addition to what the students earn during the summer, scholarships to help pay college tuition.

Corporate officials say they are taking special measures to attract interns because they are important as a source of future employees.

"We made a concerted effort to increase the number of students we had as interns because we were losing them to other companies" after they graduated, says Michael Dinkins, manager of commercial real-estate financing at General Electric's Capital Credit Corporation. "It's a way for us to compete." From one intern last summer, the corporation increased to eight the number it hired this year.

Some students do go back to college with job offers after summer

---

8 in 10 Colleges Report Efforts to Increase Enrollment of Minority Students

Continued from Preceding Page

type of institution to another. About 60 per cent of doctoral and comprehensive colleges reported "a lot" of activity to enroll and retain minority students. But baccalaureate and two-year colleges were much more likely to report only a moderate level of activity.

Tensions Low, 80 Pct. Say

Despite the national attention to incidents of racial hostility on college campuses, 80 per cent of the administrators characterized the tensions between racial and ethnic groups on their campuses as "low."

Mr. Wilson of the council said administrators might "look at their campuses and see no bombs being dropped and think there are no problems. But they are looking at physical peace as opposed to what may be a negative climate for minorities."

In fact, some of the administrators were less confident about whether their institutions were providing a supportive environment for black and Hispanic students. Forty per cent said the environment for black and Hispanic students at their institutions was fair or poor.

Among the specific methods that colleges are using to monitor minority students and improve their participation in higher education, the most common involve information gathering, the survey showed. Just over half of the institutions monitor minority-student attrition and compile statistics on their graduation rates.

When it comes to adopting more concrete approaches to improve the campus climate for minority students or to hire minority professors, the colleges reported much less activity:

- Just over 30 per cent of the administrators said their colleges offered racial-awareness workshops for students, faculty or staff members, or administrators.
- Only 37 per cent operated under a board-adopted policy that includes specific goals for increasing the presence of minority students and professors on campus. Seven per cent were considering such a policy.
- About 60 per cent of the colleges did not plan a major increase in funds to raise the number of minority-group members on their campuses, although 20 per cent were discussing such an increase.
- About 70 per cent of the colleges did not offer incentives to academic departments to increase the hiring of minority faculty members, while 11 per cent were considering doing so.

The survey results show that the "whole area of recruiting minority faculty members remains very sensitive," Ms. El-Khawas said. "It remains an issue in which colleges don't know what actions they want to take."

Eight in 10 colleges reported they were making some sort of effort to hire more minority professors. About 60 per cent said they were trying to assist minority faculty members in meeting tenure and promotion requirements.

However, nearly 50 per cent said they were making few attempts to hire senior administrators who are members of minority groups.

Finding Qualified People

Among the survey's findings about the current faculty, half of the institutions reported it was taking them longer to find qualified people for full-time positions. Half of the colleges also said they faced a more difficult time in persuading top applicants to accept faculty positions once they were offered.

Colleges reported that it was most difficult to find qualified people for faculty positions in computer science, business, mathematics, and health.

Copies of "Campus Trends, 1989" may be obtained for $8 from the American Council on Education, Division of Policy Analysis and Research, One Dupont Circle, Washington 20036-1193. The price for members of the council is $5.

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News Summary

Articles on inside pages

The anthropologist who sparked a firestorm by criticizing Margaret Mead's research on Samoan life has found new backing: Page A4.

Faculty members seeking alternatives to the classroom lecture are turning to a strategy called "collaborative learning": Page A9.

In a pay-equity settlement, the U. of Minnesota will give raises to 1,400 female administrators and faculty and staff members: Page A9.

A freeze on spending for student-aid programs and increases in support for colleges and N.I.H. research were voted by the House Appropriations Committee. A Senate committee, meanwhile, approved $225-million for the Superconducting Supercollider: Stories on Page A13.

Despite cries of censorship, the Senate approved restrictions on work the National Endowment for the Arts can support: Page A13.

A long-simmering dispute over accounting rules for higher education appears to be resolved: Page A18.

The N.C.A.A. put Adelphi U.'s men's basketball team on three years' probation: Page A19.

Students at Beijing University defied martial law in the first major demonstration since the Chinese army crushed the pro-democracy movement: Page A21.

Staff members are protesting the racial status of a teaching hospital at South Africa's University of the Witwatersrand: Page A21.

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'ACADEMIC MUSICAL CHAIRS'

Affirmative-Action Goals, Coupled With Tiny Number of Minority Ph.D.'s, Set Off Faculty Recruiting Frenzy

By CAROLYN J. MOONEY

Campuses across the country have found that hiring minority faculty members is a difficult, expensive, and often elusive goal.

That's the short-term picture that has emerged from interviews with college and university officials seeking to hire more minority professors but frustrated by the scarcity of people to recruit.

It is too early to tell whether the longer-term picture is any brighter, but many observers agree it does not look promising. Although a number of institutions such as Duke University, the University of Wisconsin at Madison, and the University of Iowa report that they have hired more minority professors for the coming academic year, many others have found there simply are not enough to meet their goals.

Doctoral Recipients: U.S. Citizens by Ethnic Group

	1988	10-year change
Black	805	−22%
American Indian	93	+55
Asian	612	+57
Hispanic	594	+26
White	20,685	− 5
Race unknown	383	—
All U.S. citizens	23,172	− 8

SOURCE: NATIONAL RESEARCH COUNCIL

'The Pipeline Is Drying Up'

From James H. Werntz, vice-chancellor for academic affairs at the University of North Carolina at Charlotte, comes this assessment: "I'm beginning to get evidence that the pipeline is drying up. We've not added as many black faculty members as we had hoped in the last couple of years."

From Jay Stauss, assistant vice-president for academic affairs and affirmative-action officer at the University of Arizona: "There just aren't many minority professors out there."

From Varro E. Tyler, executive vice-president for academic affairs at Purdue University: "We'll be lucky to break even. We're just bidding against one another. It's becoming a kind of academic musical chairs."

Indeed, many higher-education officials acknowledge that recent recruiting efforts have amounted to little more than that: musical chairs, with campuses focusing on hiring minority professors away from each other and competing for the small pool of new doctorate recipients each year.

The stagnation of blacks' progress in U.S. society is laid to persistent racism and a slowing of the economy: Page A4.

But while the game continues unabashedly, attitudes toward the recruitment of minority professors appear to be reaching a new stage: Many campuses finally recognize that if they are serious about diversifying their faculties, they must address problems of supply as well as demand. That means steering minority-group members into undergraduate programs and, ultimately, into graduate school.

"All of us know now that part of the goal is to enhance the pool," says Margaret R. Bates, vice-provost for academic programs at Duke University.

Although an increasing number of programs are under way to accomplish that goal, it may take years to see results.

In the meantime, the small proportion of

Continued on Page A10

HERE ARE 3 OF THE 4 U.S. BLACKS KNOWN TO HAVE WON MATH PH.D.'S LAST YEAR

© 1989 MARTHA EVERSON, FOR THE CHRONICLE

Emery Brown
Ph.D., Harvard University

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George F. Edmonds
Ph.D., Old Dominion University

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Elaine C. Smith
Ph.D., American University

STORY ON PAGE A11

In Brief

Grand Jury Indicts Computer-Virus Suspect

SYRACUSE, N.Y.—A federal grand jury here has indicted the Cornell University graduate student who allegedly created a computer "virus" that clogged a computer network used by colleges and universities and by the U.S. military.

Robert T. Morris (*below*), 24, charged with one count of accessing—intentionally and without authorization—at least six computers in which the federal government had an interest.

© 1988 MARK REINSTEIN FOR THE CHRONICLE

The single felony count, which was announced by the U.S. Justice Department last week, is one of the first indictments to be brought under the Computer Fraud and Abuse Act of 1986.

Mr. Morris devised a computer program that kept reproducing and sending itself out over a network until it crippled thousands of machines across the nation last fall. A lawyer for Mr. Morris said the student would plead not guilty.

A report released by Cornell in April said Mr. Morris had acted alone when he released his computer virus on a national research network. The university has suspended Mr. Morris until the 1990 fall semester.

Two Shot and Killed at U. of Washington

SEATTLE—A suspect was arrested in the shooting murders at the University of Washington last week of one student and an applicant to the university's medical school.

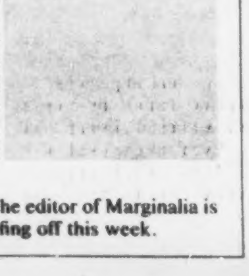
The shootings occurred on the campus in full view of passersby and students in classrooms, some of whom came to the aid of the victims while others pursued the suspect until police arrested him near the campus.

The victims were Marjan Mohseninia, 18, and Abraham Sharif-Kashani, 27. Mr. Sharif-Kashani had recently graduated from Seattle Pacific University and had applied for admission to the University of Washington's medical school. Ms. Mohseninia was enrolled in summer courses at the university.

The suspect, identified as Azizollah Mozooni, 24, was being held on two counts of suspicion of homicide, with bail set at $500,000. Police said Mr. Mozooni was believed to be a former boyfriend of Ms. Mohseninia.

One student who saw the shootings from a classroom was a trained firefighter who, after discovering Mr. Sharif-Kashani was dead, administered first aid to Ms. Mohseninia. She was taken by ambulance to a nearby hospital, where she died.

MARGINALIA



The editor of Marginalia is goofing off this week.

President Resigns at Chicago State U.

CHICAGO—George E. Ayers resigned last month as president of Chicago State University during a meeting of the Illinois Board of Governors of State Colleges and Universities. The resignation came amid allegations of sexual harassment and financial irregularities.

A spokeswoman for the system declined to say whether Mr. Ayers had been asked to resign, and declined to say whether the allegations had played a role in his resignation. Mr. Ayers could not be reached for comment.

Mr. Ayers has been reassigned as a special assistant to the chancellor and will serve as a representative to the Center for Minority Educational Opportunity and Achievement at the American Association of State Colleges and Universities.

"He'll be working at the same salary, $85,860, until next July, when he will be moving on out of the system completely," said Michelle R. Brazell, the board's assistant vice-chancellor for communications.

Harold Delaney, executive vice-president emeritus of the A.A.S.C.U., has been named acting president of Chicago State.

Cal. Regents Halt Pay of Convicted Ex-Chancellor

SAN FRANCISCO—The University of California's Board of Regents has cut off the $84,200-a-year salary of Robert A. Huttenback, former chancellor of the Santa Barbara campus, while he appeals his conviction for embezzling $174,000 in university funds.

The board also officially suspended Mr. Huttenback from his tenured faculty position but rejected faculty and administration recommendations for dismissal. The board said, however, that if Mr. Huttenback's felony conviction is upheld, he will be dismissed automatically. He would be the first tenured university faculty member to be fired in the university's 120-year history.

The board acted amid growing public criticism of the university's continued payment of Mr. Huttenback's salary, more than one year after his conviction.

Mr. Huttenback was convicted last year of misappropriating university funds for work on his personal residence and was ordered to pay a $60,000 fine, serve five years' probation, and perform 1,000 hours of community service. He had earlier repaid $174,000 to the university.

Mr. Huttenback denies any wrongdoing.

What They're Reading on College Campuses

		Previous Survey
1.	Yukon Ho! by Bill Watterson	2
2.	All I Really Need to Know I Learned in Kindergarten, by Robert Fulghum	5
3	The Russia House, by John le Carré	—
4.	The Mummy, by Anne Rice	6
5.	Wildlife Preserves, by Gary Larson	3
6.	Love in the Time of Cholera, by Gabriel Garcia Márquez	1
7.	Chaos, by James Gleick	7
8.	Till We Meet Again, by Judith Krantz	—
9.	Talking God, by Tony Hillerman	—
10.	It's Always Something, by Gilda Radner	—

The Chronicle's list of best-selling books was compiled from information supplied by stores serving the following campuses: American U., Baylor U., Bucknell U., Carleton College, Carnegie Mellon U., Case Western Reserve U., Central Michigan U., Idaho State U., Indiana U., Kent State U., Lawrence U., Lehigh U., Mankato State U., Montana State U., New York U., Pennsylvania State U., Portland State U., Princeton U., San Francisco State U., Stanford U., Syracuse U., Tarrant County Junior College, Tulane U., U. of California at San Diego, U. of Hawaii, U. of Illinois at Urbana-Champaign, U. of Iowa, U. of Maryland-Baltimore County, U. of Missouri at Columbia, U. of Nebraska at Lincoln, U. of New Orleans, U. of Notre Dame, U. of Pittsburgh, U. of Puget Sound, U. of Virginia, U. of Washington, U. of Wisconsin at Madison, Vanderbilt U., and Xavier U. (Ohio). Reports covered sales of hardcover and paperback trade books in June.

2 Students Who Cheated Win Right to Enroll

GALVESTON, TEX.—Twin brothers who were suspended from the University of Texas Medical Branch at Galveston for cheating have won the right to enroll for second-year classes, pending an appeal by the university.

The 23-year-old twins, Forrest and Wendell Wall, were suspended after they admitted that they had collaborated on a paper for a medical-ethics course that counted for a quarter of their final grade.

Thomas N. James, president of the medical school, ruled that the twins should repeat the ethics course, write theses on plagiarism, and perform 225 hours of community-service work.

A faculty committee later decided that the two should be given failing marks in their ethics course. That would prevent them from enrolling in second-year classes until they had repeated and passed the course.

The brothers took their case to district court, where a judge said the two had already been punished enough and should be allowed to enroll. An appeals court ruled last month that the lower court order's should remain in effect while the university's appeal was pending.

Academic Wins Battle to Avoid Deportation

WASHINGTON—The Board of Immigration Appeals ruled last week that Margaret J. Randall, a writer and professor, is a U.S. citizen and therefore cannot be deported.

The U.S. Immigration and Naturalization Service had said that Ms. Randall renounced her U.S. citizenship when she became a Mexican national in 1967. But the board, which handles appeals of immigration-service deportation orders—determined in a 3-to-2 decision that she had been forced by dire economic circumstances to take out Mexican citizenship and never freely renounced her American citizenship.

Ms. Randall, who has lived in Mexico, Cuba, and Nicaragua, has taught at the University of New Mexico, Trinity College in Connecticut, and Oberlin and Macalester Colleges since she returned to the United States five years ago.

U.S. Charges Activists in Animal-Rights Protest

BALTIMORE—Three animal-rights activists have been indicted in federal court here for their roles in a demonstration at the National Institutes of Health in April.

Two of the activists, Alexander F. Pacheco and Carol Lyn Burnett, were charged with assaulting an N.I.H. security officer. The third, Edward M. Ashton, was charged with destroying government property when he broke open the front door of the N.I.H. administration building, according to the indictment.

During the demonstration, which was sponsored by People for the Ethical Treatment of Animals, several hundred activists protested the use of animals in medical research. N.I.H. officials had given the activists permission to demonstrate. But protest-

High-School Students Found Taking More Core-Curriculum Courses

PRINCETON, N.J.

Today's high-school students are taking more core-curriculum courses than their predecessors were five years ago, according to a new report by the Educational Testing Service.

The report, "What Americans Study," suggests that the curriculum recommendations laid out six years ago in "A Nation at Risk," a report by the National Commission on Excellence in Education, are having an impact on high-school students.

"It's clear that the reform efforts of the 1980's are resulting in more high-school graduates who are better prepared in academics," said Paul E. Barton, director of the E.T.S. Policy Information Center, which produced the report. "This is a result of more stringent state requirements and also increased admissions requirements on the part of many colleges."

"What Americans Study" is a roundup of research on course-taking trends of high-school seniors. It examines the courses that high-school graduates took between 1982 and 1987, as well as information reported by college-bound seniors taking the Scholastic Aptitude Test in 1975, 1982, and 1988.

The report also includes information on the courses students complete in earlier grades. It shows that at least 75 per cent of all of last year's college-bound students completed four years of English, three years each of mathematics, science, and social studies, and two years of foreign-language studies. Ninety-five per cent of all students met the mathematics recommendations in "A Nation at Risk."

"What Americans Study" focuses on gains made in mathematics and sciences. The report reflects the quantity, not the quality, of courses that students have taken. Between 1982 and 1987, the E.T.S. report says, larger proportions of black, white, and Hispanic high-school students took algebra, geometry, pre-calculus, and trigonometry. Only small differences were reported in the proportions of male and female students taking those courses.

Over the five-year period, geometry made the largest gain in attracting students. In 1987, 61 per cent of all high-school graduates had taken geometry—a 15-per-cent increase since 1982.

In science, chemistry registered the biggest gain. The number of seniors taking chemistry courses increased by 15 per cent over the five-year period from 1982 to 1987.

The report, "What Americans Study," is available for $3.50 per copy from the E.T.S. Publications Order Service, P.O. Box 6736, Princeton, N.J. 08541.

—COURTNEY LEATHERMAN

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Ambitious Goals, Tiny Pool Set Off Minority Faculty Recruiting Frenzy

Continued from Page A1

minority-group members in the nation's professoriate has become a major topic of discussion in academe. Across the country, small rural colleges and elite research universities alike have outlined ambitious plans to recruit more minority professors, and many a recent conference has devoted sessions to developing, recruiting, mentoring, and retaining them.

The result is a recruitment frenzy that is forcing campuses to address difficult and often thorny questions. Among them:

- Should minority professors command higher salaries than their white colleagues?
- Should institutions freely raid each other's faculties?
- Do recruitment plans that favor minority candidates constitute reverse discrimination?
- Does hiring foreign-born members of minority groups help attain affirmative-action goals?
- Should universities hire their own doctoral-degree recipients as professors, traditionally taboo?
- And, perhaps most important, what can be done to encourage more minority students to enter graduate school?

In 1985, the most recent year for which national statistics are available, minority-group members—including non-U.S. citizens—held 10 per cent of all full-time faculty jobs. By comparison, nearly 18 per cent of the nation's undergraduates in 1986 were American minority-group members.

From Lower-Income Families

In addition, the flow of minority students into doctoral programs—the main source of new professors for four-year institutions—has been slow. In 1988, for example, blacks earned 805 doctorates—22 per cent fewer than in 1978, and only 3.5 per cent of all doctorates awarded to U.S. citizens, according to preliminary statistics from the National Research Council. While the number of doctorates awarded to Hispanics, Asians, and American Indians has risen, their overall share remains small.

One common explanation for the low participation rates is that minority students tend to come from lower-income families than white students and thus are more reluctant to assume the financial burden of graduate school. Others are attracted to professional schools. Still others may have found academe inhospitable as undergraduates, a concern that is prompting some campuses to scrutinize everything from the curriculum to support programs to see if they are sensitive to minority students.

At the same time, higher-education officials say, academic careers must be made more attractive to all Americans. Although the number of doctorates awarded by U.S. universities rose between 1978 and 1988, foreign scholars accounted for much of the gain. The number of white Americans earning doctorates, while up slightly over last year, fell by 5 per cent since 1978.

"In the long run, the only thing that can be done is to increase the compensation and status of the academic profession as a whole," says Ormond Smythe, dean of academic affairs at Fisk University.

'You Can't Lock the Doors'

In the short run, minority scholars are in big demand.

A year and a half ago, the University of Wisconsin at Madison outlined an ambitious plan to add 70 minority professors—45 at the junior level and 25 at the senior level—over the next three and a half years. In the first year, it added 18 new minority professors. But it actually suffered a net loss of blacks: Although three of the new professors were black, five black professors left the campus.

"What is somewhat discouraging is that you can't lock the doors," says Bernard Cohen, vice-chancellor for academic affairs.

However, if institutions could lock their doors, Madison would not have made the gains that it did. For academic 1989-90, Madison expects to add six blacks, nine Hispanics, two American Indians, and one Pacific Islander to its faculty. Only one minority professor departed, resulting in a net increase of 17 minority professors.

Madison has been extremely aggressive in recruiting professors and trying to organize faculty-exchange programs with historically black institutions. But at least one administrator at a black university is nervous about how Madison will meet its numerical goal.

"They can come to Fisk University and say they're not interested in raiding," says Fisk's Mr. Smythe. But as long as Madison's plan includes hiring goals for senior faculty members, he adds, it appears some institutions will lose.

Madison officials say they won't raid black institutions, "but we figure our peer institutions are fair game," says Associate Vice-Chancellor Phillip R. Certain.

> **"We make just as many errors for the top male candidates, so why can't we take the chance on minorities?"**

His colleague, Mr. Cohen, defends the so-called Madison Plan this way: "No matter what we do, we cause problems for somebody," he says. "I think a more interesting question is, Why hire more minority professors? We are doing it to break the logjam and create an environment that is more attractive to junior minority faculty and students."

As an incentive, a growing number of campuses allow departments to hire a minority professor even if there isn't a job opening.

Among them is the University of Iowa. Before it had hired seven black professors for the coming year, it had only 16 black Americans on its 1,650-member faculty.

At the University of Arizona, academic departments must show that they are making a special effort to recruit women and minority-group members, and must try to include them on faculty search committees. As of June, Arizona had hired four Hispanics, three blacks, and three Asians for academic 1989-90. Because the state is heavily Hispanic, the university especially wants to recruit Hispanics, who make up just 2.6 per cent of its 2,078-member faculty.

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Reginald Wilson: Hiring foreign-born minorities does not address the problems that affirmative action was designed to solve.

DUKE UNIVERSITY

Margaret R. Bates: "You don't want situations where someone is so out of line with their colleagues that there is not a single faculty."

DAVID UMBERGER, PURDUE UNIVERSITY

Varro E. Tyler: "We'll be lucky to break even. We're just bidding against one another. It's becoming an academic musical chairs."

Mr. Stauss, the assistant vice-president, is disappointed. Part of the problem, he says, is that some professors think affirmative-action goals require them to accept less-qualified candidates. But tenure rates for minority professors and white men, he notes, are similar. "We make just as many errors for the top male candidates who we think are the greatest thing that ever walked the earth, so why can't we take the chance on minorities?"

An Affirmative-Action Inquiry

Reginald Wilson, a senior scholar at the American Council on Education, says the desire to hire only the top candidate is a common problem among faculty. "If people meet the standards for acceptable candidates, they are acceptable," he says. "But you have to have an administration that is immune to faculty grumbling."

A case in point is Miami University. Since 1983, Miami has increased from 7 to 32 the number of black professors. It allows departments in which minority professors have historically been underrepresented to recruit qualified minority candidates without a full search.

Miami's success has not been tension-free. Last fall, an anonymous complaint led the Justice Department to conduct a quiet investigation of the university's affirmative-action program. Miami's affirmative-action officer thinks a disgruntled professor complained that the program was biased. (It was cleared.)

Indeed, faculty resistance to affirmative-action efforts can be strong. Last fall, for example, many of the 300 participants at the first annual meeting of the National Association of Scholars decried what they said were minority-recruitment plans that resulted in the hiring of mediocre candidates.

In some cases, professors who strongly support the goals of affirmative action say there simply are no minority scholars who would meet their departments' standards. A professor whose department is among the most prestigious in the country reluctantly admits there are no black American scholars in his discipline who could be hired by his department without it being obvious to other professors—and to the minority candidate—that standards were being relaxed significantly. "Do you really think any top department would not hire a black if there weren't any other reason?" he asks, obviously frustrated.

Salaries Are a 'Market Matter'

On some campuses, the question of whether minority professors should command higher salaries threatens to add further to tensions. Because competition is so fierce, many recruit minority professors at salaries higher than those offered whites. "It's a market matter," says Mr. Werntz of North Carolina's Charlotte campus. He estimates that the salary differential at his campus is 5 per cent, but adds: "We hire accountants at salaries that are twice as high as those for foreign-language professors."

Duke decides salaries on a case-by-case basis. But, says Ms. Bates, the vice-provost, "You don't want to have situations where someone is so broadly out of line with their colleagues that there is no longer a single faculty."

Duke, which last year recommended that each academic unit hire a minority professor within five years, expects to add between four and six blacks to its faculty for the fall. The university's long-term approach also calls for more aggressive graduate-school recruitment of minority students.

Like other institutions, Duke is debating the appropriateness of recruiting its own doctoral-degree recipients as professors. While many

Minority-Group Members in Academe

In 1985, the most recent year for which comprehensive national statistics are available, minority-group members—including non-U.S. citizens—held 10 per cent of the nation's full-time faculty positions.

By comparison, American minority students made up nearly 18 per cent of the nation's undergraduates in 1986.

Blacks: They represented 4.1 per cent of the nation's full-time faculty members in 1985, down from 4.4 per cent in 1975. The total number of blacks increased during that time, however.

In 1988 blacks earned 805 doctorates—22 per cent fewer than in 1978. They earned 3.5 per cent of all doctorates awarded to U.S. citizens in 1988.

Many black professors are concentrated at historically black institutions. The proportion teaching at predominantly white institutions is estimated at 2.3 per cent.

Hispanics: They represented 1.7 per cent of all full-time faculty members in 1985, up from 1.4 per cent in 1975. The number holding full-time faculty positions rose by 27.9 per cent.

In 1988 Hispanics earned 594 doctorates—26 per cent more than in 1978.

Hispanics earned 2.6 per cent of all doctorates awarded to U.S. citizens in !988.

Asians: They represented 3.9 per cent of America's full-time faculty members in 1985, up from 2.2 per cent in 1975. The number holding full-time faculty positions members rose by 95.7 per cent.

In 1988 612 U.S. Asians earned doctorates—57 per cent more than in 1978 They earned 2.6 per cent of all doctorates awarded to U.S. citizens in 1988.

American Indians: They represented 0.3 per cent of all full-time faculty members in 1985, up from 0.2 per cent in 1975. The number holding full-time faculty positions rose by 48.2 per cent.

In 1988 93 American Indians earned doctorates—55 per cent more than in 1978. They earned 0.4 per cent of all doctorates awarded to U.S. citizens in 1988.

SOURCES: *U.S. Equal Employment Opportunity Commission (faculty statistics) and National Research Council (doctorates).*

campuses have avoided that practice on grounds that it encourages "intellectual inbreeding," some are reconsidering.

"It's only a problem when you hire all of your own or none of your own," says Ms. Bates.

Foreign-Born Professors

An issue that has prompted much more rigorous debate is whether an institution's statistics on minority professors should include those who are foreign-born.

Mr. Wilson of the A.C.E. recalls serving as a consultant to an institution that claimed 10 per cent of its faculty was Hispanic. But when he looked closely, he says, he found that most were white Spaniards or Latin Americans.

In his opinion, because many minority-recruitment plans are aimed at providing role models for U.S. minority students, hiring foreign-born minorities will not address the problems that affirmative action was designed to solve. An African educated in England, he adds, may not understand the experiences of black Americans.

Ideally, many officials say, most foreign minority scholars should not be counted in satisfying affirmative-action goals. But because of the shortage of U.S. minority scholars, many institutions don't make a distinction.

For small institutions like Carroll College in Wisconsin, which have no American minority professors, foreign-born professors add much-needed diversity. Hearing about what "the Dukes and Stanfords" are doing, says Carroll's president, Dan C. West, is of little help to small colleges that can't offer competitive salaries or are located in rural areas with no minority communities.

'It Doesn't Happen Overnight'

Institutions that genuinely want to diversify their faculties are finding that it takes time—and work.

"It doesn't happen overnight," says Quiester Craig, dean of the business school at the North Carolina Agricultural and Technical State University, a traditionally black institution. (Mr. Craig credits officials at Howard for encouraging the business school to seek accreditation, and likes to joke that the A.A.C.S.B.—the acronym for the American Assembly of Collegiate Schools of Business—does the accrediting, not the N.A.A.C.P.)

At a time when black accounting professors are extremely rare, North Carolina A&T boasts five who hold doctorates. Mr. Craig makes it his business to keep tabs on promising black—and white—candidates.

To campuses seeking minority professors, Mr. Craig offers this advice: Don't deny minority students with high undergraduate grades admission to graduate programs simply because they did poorly on standardized tests. Be prepared to spend money on recruiting and graduate-school stipends. "Network" with professors and deans at professional meetings. And convince top administrators that the goal is worthwhile.

"They have to do the same thing that their football and basketball coaches do," Mr. Craig says. "That is their livelihood. They have to win."

Only 4 Black Americans Said to Have Earned Math Ph.D.'s in 1987-88

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Elaine C. Smith was annoyed when she learned that a theorem was named after a black mathematician. "Nobody bothered to tell me he was black."

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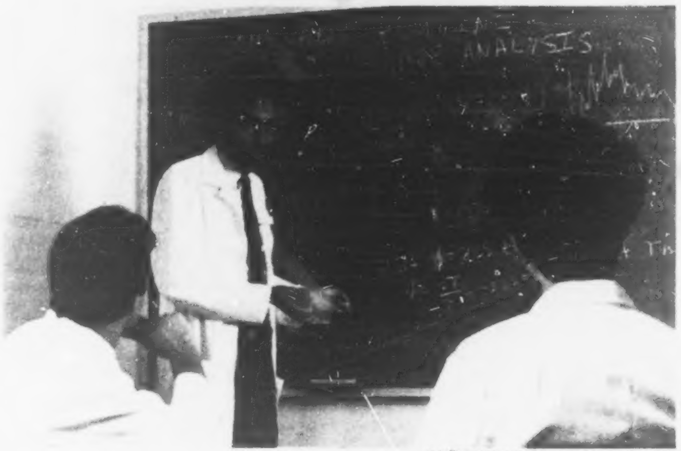
George F. Edmonds was an administrator in American and African schools before joining Elizabeth City's faculty in 1979.



© 1989 MARTHA EVERSON, FOR THE CHRONICLE

As a child, Emery Brown was given challenging mathematical problems by his father, who was one of his earliest mentors.

By CAROLYN J. MOONEY

The black Americans who are reported to have received doctorates in mathematics in academic 1987-88 could pile into a small car: There were just four of them, according to a comprehensive statistical profile of Ph.D. recipients conducted by the American Mathematical Society and the Mathematical Association of America.

The small number starkly illustrates what many campuses, eager to recruit more minority professors, have come to realize: If minority-group members aren't in the graduate-school pipeline today, they won't be teaching on college campuses tomorrow.

The number of American blacks earning doctorates dropped by 22 per cent over the last decade. The problem is especially acute in so-called hard-to-hire disciplines like mathematics and the sciences, which face a shortage of American Ph.D. recipients of all races. Of 804 mathematics doctorates awarded by U.S. institutions in 1987-88, for example, only 363 went to Americans—down from 634 a decade earlier, according to the math survey. The 1987-88 recipients included nine U.S. Asians, five U.S. Hispanics, one American Indian, and five foreign blacks.

Competition Is Intense

Even if some departments failed to report to the math society that they had awarded a Ph.D. to a black American in 1987-88, the number awarded doctorates in mathematics would still be very small. Not surprisingly, competition for the recipients is intense.

"It's obvious we have to do something about the horrible representation," says M. J. Frank, chairman of the mathematics department at the Illinois Institute of Technology. "The problem is, there are so darned few of them."

Dennis Davenport, one of the four faces behind the math society's 1987-88 statistics, is among those few. He had a choice of job offers after he received his doctorate from Howard University, and he decided to join the faculty at Miami University in Ohio, which has developed a reputation for recruiting minority professors.

"I was in big demand," Mr. Davenport acknowledges. "It was because I was black—and American. No question." Mr. Davenport received four job offers, including one from an institution that said it would better any offer he had. He turned down invitations to visit other campuses, and he is still hearing from other departments.

Despite Miami's track record in hiring professors, Mr. Davenport chose it strictly because of its academic reputation. The first member of his family to earn a doctorate, he thinks students definitely need role models, but not necessarily from the same ethnic background. He had several professors—black and white—who encouraged him to excel, he says.

The three black scholars who received mathematics doctorates in the same period also cite the importance of role models and mentors, as well as financial support.

Elaine C. Smith, who received a Ph.D. in mathematics education from American University, now teaches at an experimental public school in Washington. (The society's statistics include doctorates in mathematics education only if they are awarded through mathematics departments rather than education programs.) "I wanted to have more influence at an earlier age," says Ms. Smith, who eventually wants to start a private school for black children.

Hoped to See Black Professors

Also the first in her family to earn a doctoral degree, Ms. Smith entered graduate school after teaching in the City University of New York system for four years. She says she would have liked to see more black professors in graduate school and recalls being annoyed upon learning that a particular theorem she had studied was named after a black mathematician. "Nobody ever bothered to tell me he was black," she says. "It was very thrilling to find out."

Emery Brown, who received a joint Ph.D. in statistics and M.D. from Harvard University, is about to begin his medical residency in Boston. He is planning a career in medical research and statistics.

His father, a mathematics teacher, was one of Mr. Brown's earliest mentors, and frequently would give his sons problems to do in addition to their homework. As an elementary-school student in rural Florida, Emery Brown could do the algebra his father assigned to high-school students.

"It was really pathetic to read these letters from universities that are desperately trying to recruit blacks in math."

Even so, he recalls feeling left out when one of his teachers offered to tutor a white classmate who also excelled in mathematics, but not him. "It just never occurred to her," he says. An inquisitive youngster, he asked to be tutored as well. (Mr. Brown also has a passion for foreign languages, having lived and studied abroad. He is proficient in French and Spanish, and also speaks Portuguese and German.)

"My family gave me a strong sense of self," says Mr. Brown, who completed high school at Phillips Exeter Academy, an elite private school in New England. He now serves as a pre-medical adviser to undergraduates, including some who are black. Through his contacts with them, he realizes it would have been helpful to have encountered more black professors during his years at Harvard. But, he says, minority students cannot let themselves be "consumed by the fact" that there are few blacks in the professoriate.

The fourth doctoral-degree recipient, George F. Edmonds, 61 years old, is an associate professor of mathematics at Elizabeth City State University. He did his graduate work at Old Dominion University under a state program that encourages professors in North Carolina's university system to earn doctorates. Before joining Elizabeth City's faculty in 1979, he was a school administrator in the United States and Africa.

Returned to Elizabeth City

In return for partial state support, Mr. Edmonds was obligated to teach at Elizabeth City for at least two years—typical for institutions that "grow their own" minority professors. Old Dominion also financed part of his education.

Mr. Edmonds, too, was in de-

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A study of "motion mitigation" for art objects may help museums prepare for earthquakes: Page A5.

Critics of Mercer U.'s president say his ambitions for the institution have led to financial retrenchment and emotional turmoil: Page A9.

The president of the U. of Nebraska has been removed: Page A9.

The House passed a bill to freeze spending for student aid and increase financing for other college programs and the N.I.H.: Page A13.

Colleges are hiring companies to operate their bookstores: Page A23.

A summer institute at Indiana U. uses immersion to teach tough East Asian languages: Page A27.

A professor confirmed some of the charges about North Carolina State U.'s basketball program contained in a new book: Page A28.

Students and academics played a key role in a peaceful campaign to desegregate South Africa's hospitals: Page A32.

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'Obscenity' Measure Could Bar U.S. Aid to Humanities Groups

Helms provision would also affect Smithsonian, National Gallery

BY CHRISTOPHER MYERS

WASHINGTON

A controversial Senate measure that would place broad restrictions on the kind of work that can be supported by the National Endowment for the Arts applies to the National Endowment for the Humanities as well.

The measure, sponsored by Sen. Jesse Helms and adopted by the Senate last month, would bar the use of federal funds for projects that involve sexual themes or offend certain groups.

A U. of Pennsylvania institute faces a 5-year ban on U.S. funds for its role in sponsoring a controversial show: Page A20.

Senator Helms, a Republican from North Carolina, introduced his amendment in response to two controversial exhibits supported by the arts endowment. Because of those circumstances, many lobbyists believed it applied only to the arts. But the wording of the measure extends its prohibitions to all of the agencies that receive their federal funds in the same bill as the arts endowment—agencies that include the humanities endowment, the Smithsonian Institution, and the National Gallery of Art.

Many Scholars Vow to Fight

Upon learning that they too could be subject to the limitations of the amendment, scholars have reacted with feelings that range from unease to outrage, and many have vowed to fight against the measure's becoming law. They say the amendment raises the possibility that projects in a wide range of non-traditional academic disciplines—women's studies and

Continued on Page A20

China Is Reported About to Postpone All Fulbright Exchanges for a Year to Express Displeasure With U.S.

China Aftershocks

- **600 Chinese students** in the U.S. held an unprecedented meeting; reports from China said the government criticized the gathering and called the participants "traitors": Page A30.
- **Friends of Liu Xiaobo**, a jailed Chinese intellectual who lectured in the U.S., fear that he will be executed. They have started a desperate campaign to save him: Page A31.

Among Beijing's grievances are sanctions, harboring dissident

By LOUISE BRANSON

BEIJING

Chinese authorities have indicated that they will seek a one-year postponement of all academic exchanges between the United States and the People's Republic conducted under the Fulbright program, informed sources said here.

Beijing, a source said, believes it would "not be convenient to have any Fulbright professors" visit China in the coming year. The authorities reportedly cited "changes in the curriculum" and other adjustments now under way at Chinese universities as reasons for a postponement.

A cut-off of exchanges, the source said, would be designed to register official Chinese displeasure with the United States for harboring dissident professor Fang Lizhi and his wife, Li Shuxian, at the U.S. Embassy here, and for the sanctions the United States has levied against China in the wake of the massacre in Tiananmen Square on June 4. The report reflects the uncertainties that have swept through the Chinese academic world since the crushing of the student-led pro-democracy protests and the subsequent hard-line ideological backlash.

USIA Says Negotiations Continue

[In Washington, an official of the United States Information Agency's office for East Asia and Pacific Affairs refused to confirm whether Chinese officials had acted to postpone participation in the Fulbright program. "We're not going to make any announcements until there are some to make. We feel we're still in the process of final negotiations."

[Said another U.S.I.A. official: "It seems nobody officially wants to say the program

Continued on Page A32

Bush Invites Governors to Discuss Education at a National 'Summit'

By SCOTT JASCHIK

CHICAGO

President Bush last week invited the nation's governors to hold a "summit" with him next month on a wide range of education issues. In a speech here to the annual meeting of the National Governors' Association, Mr. Bush said the summit would provide an opportunity "to strengthen our schools, to enlarge opportunities, and to improve our nation's educational performance."

The governors praised the idea of holding in-depth discussions with the President on ways to improve the nation's schools and colleges. But many also expressed skepticism about whether the meeting would accomplish much if President Bush

Continued on Page A14

Lobbying Firm Is Dealt a Withering Blow by Senate Appropriations Chairman

By COLLEEN CORDES

WASHINGTON

The golden luck of Cassidy and Associates, the lobbying firm with legendary success at winning millions of federal dollars for specific campus projects, has finally been tarnished.

The company has come under fire in recent weeks from one of the nation's most powerful politicians: Sen. Robert C. Byrd, the West Virginia Democrat who is chairman of the Senate Appropriations Committee.

Senator Byrd has publicly chastised the firm for having "taken in" one of his constituents—West Virginia University, a Cassidy client—and wasting the institution's money. The Senator said he would have gladly fought for, and probably won, the $18-million in federal money the university is seeking for a new science center without any prodding or assistance from outsiders.

Instead, because of the way Cassidy represented the university, Mr. Byrd said he would not support the project—virtually killing its chances in Congress.

A spokesman for the firm defended Cassidy's practices, saying that the company provides appropriate services for the universities it represents.

Mr. Byrd also introduced legislation that

Continued on Page A18

Sen. Robert C. Byrd: "Every Senator in this body ought to be repulsed by the perception that we will dole out the bucks if stroked by the right consultant."

MARGINALIA

Cleaning our desktop this morning—a process not unlike an archaeological dig—we came across, first, an unopened note from a fellow staff member thanking us for a Christmas card we had sent her a few days before and, next, a rich vein of submissions to this column that had come in while we were out of the office for 10 days last winter. Some of the artifacts:

■

Among the sessions at the midwinter meeting of the American Library Association were: "Worst Serials Title Change of the Year Com." and "Fuzzy Match Interest Grp."

■

Headline in a November 1988 issue of the University of Connecticut's *UConn Advance:*

UCONN TO HOUSE MAJOR
RESEARCH CENTER FOR GRINDING
RESEARCH AND DEVELOPMENT

We hope it's big enough for just about everything.

■

Item in a December issue of the *Daily Trojan*, the student newspaper at the University of Southern California.

"Ocean life in the Antarctic is almost twice as abundant as scientists previously thought, according to a study conducted by a university researcher released Monday by the National Science Foundation."

On his own recognizance, we assume.

■

Headline in a November 1988 issue of the Rochester (N.Y.) *Democrat and Chronicle:*

ATHLETES DON'T LIKE ADADEMIA

Neither does that headline writer, a reader speculates.

■

Yet another November 1988 headline, this one from the Illinois Central College *Harbinger:*

STUDENTS NEED CURIOUSITY

And spelling lessons, a correspondent suggests.

■

Also back in December, a reader sent us an instructor-evaluation form used in the College of Liberal Arts at the University of Southern Mississippi, on which these entries were the best a teacher could receive in various categories:

"The instructor very often demonstrates a broad understanding of this subject.

"The instructor is very often helpful when students have problems.

"The instructor very often returns graded work in time to benefit the students.

"The instructor's grading is often very fair."

Faint praise! —C.G.

In Brief

Vandals Strike Farm at U. of Illinois

URBANA, ILL.—An outbreak of vandalism at the University of Illinois at Urbana-Champaign has researchers wondering what will be the next target.

Gene Oldham, an agronomist and manager of the Agronomy–Plant Pathology Research Farm at the university, said three trucks were stolen from the university's dairy farm last week and driven through fields of corn and soybean experiments. Two days later, vandals set fire to a storage building across from the dairy farm, he said.

Lieut. Krystal Fitzpatrick of the campus police said extra patrols had been added to the area. The police are not sure whether the two incidents are related and they have no suspects, she said.

It will cost the university about $250,000 to rebuild the storage building, which was completely destroyed, Lieutenant Fitzpatrick said. Mr. Oldham said it would cost researchers about $20,000 to repeat their experiments.

Fraternity and Sorority Punished in Alcohol Case

DURHAM, N.H.—The University of New Hampshire has disciplined a sorority and a fraternity for violating university rules governing the use of alcohol.

The action followed a car crash that killed a student while she and five other sorority women were returning from an all-day party at a state park in April.

Pi Kappa Alpha fraternity, which sponsored the party, was placed in jeopardy of suspension for five years, and was barred from recruiting or accepting new members for a year, said Michael A. Sciola, Greek adviser in the student-activities office. In addition, he said, no alcohol may be consumed in the fraternity house, and the organization must meet several other conditions.

Alpha Chi Omega sorority was placed in jeopardy of suspension for a semester and put on probation for three years, Mr. Sciola said. The sorority must initiate an alcohol-awareness program for its members.

Bishop College Bid Fails; Woman Forfeits Jewels

DALLAS—A Sri Lankan woman who had hoped to buy bankrupt Bishop College has forfeited the $75,000 worth of jewels she put down as a deposit. Bankruptcy-court officials said her contract to buy the college had been terminated.

The woman, Sujatha Nadarajah, failed to meet a deadline last week for coming up with the funds to buy the college, which had been a historically black institution. The price was $10-million.

Ms. Nadarajah, who lives in Lubbock, Tex., still owes an additional $100,000.

The college was closed last year because of massive debts.

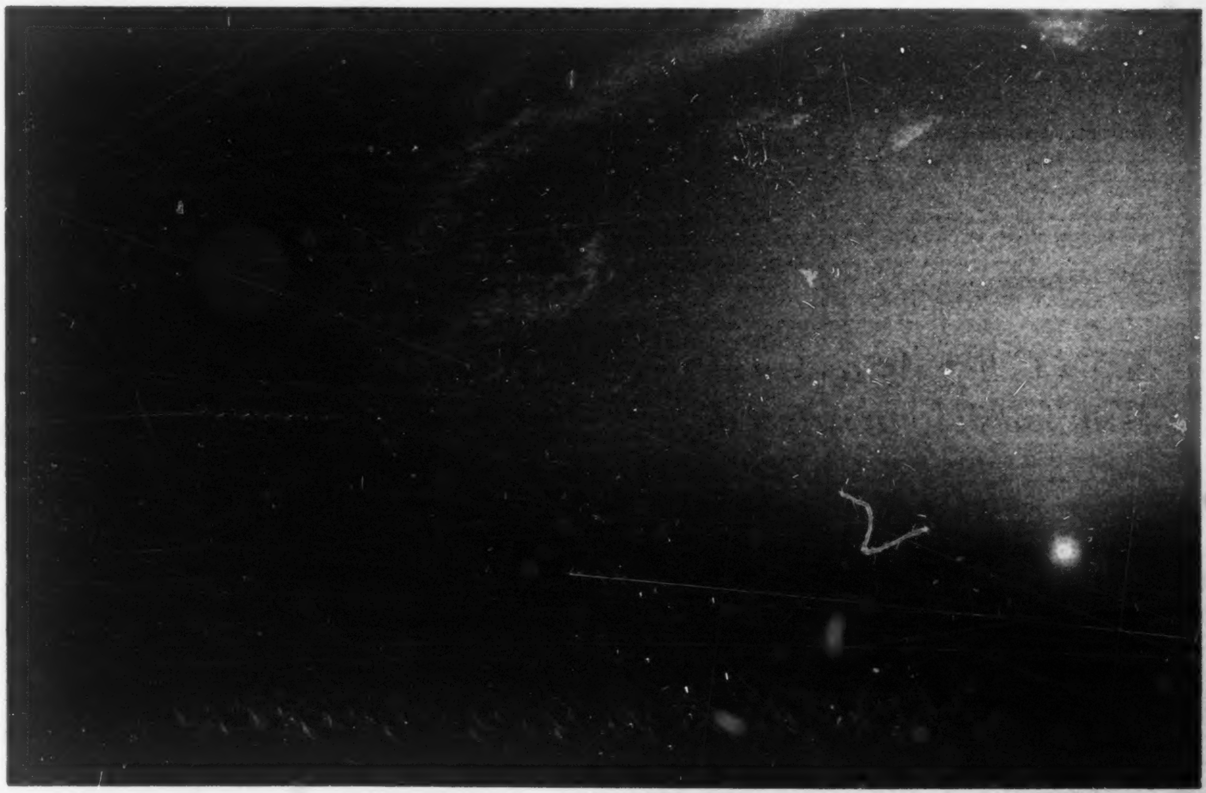
Soviet, American Students to Publish Magazine

MALIBU, CAL.—A group of students from Pepperdine, Stanford, and Moscow State Universities is planning to start the first jointly published American-Soviet campus magazine early next year.

Scott Talcott, a senior at Pepperdine, and Susan McKean, a sophomore at Stanford, plan to travel to Moscow this month for the first editorial meeting of the new quarterly magazine, to be called *Montage*, which will be distributed on college campuses in both the United States and the Soviet Union. Vladimir Tyurienkov, a student at Moscow State University, is the students' Russian partner in the project.

The idea for the magazine grew

NEON LIGHTS FOR THE GREAT BIKE RIDE



CEDAR FALLS, IOWA

When administrators at the University of Northern Iowa were asked to provide overnight shelter for 10,000 people, a light went on in their heads—and it was neon.

The request came from organizers of the Des Moines *Register*'s Annual Great Bike Ride Across Iowa. What emerged was *Square Wave–Aere Perennius*, the world's largest neon sculpture (*above*).

***Square Wave*'s 144 tent-like structures sprawl across three acres of Northern Iowa's campus. Topped by a computer-controlled neon light, each structure can shelter 10 bike riders.**

James White, a professor of sculpture at Arizona State University, created *Square Wave*. Mr. White can mimic familiar rhythms—ranging from heartbeats to breathing—by dimming and brightening the neon, sending waves of light through the matrix.

***Square Wave* will be slept in only one night, and on display only three days. Northern Iowa hopes to recover its $50,000 cost from grants and souvenir sales.**

The bike tour sends riders, such as those (*right*) representing the Des Moines General Hospital, across 479 miles of Iowa in seven days from the Missouri to the Mississippi Rivers.

—THOMAS H. MOORE

PHOTOGRAPHS BY BILL WITT, UNIVERSITY OF NORTHERN IOWA

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Ways & Means

Higher education is becoming an early issue in the 1990 governor's race in Iowa.

Donald D. Avenson, Speaker of the Iowa House of Representatives and a Democratic candidate in the race, recently wrote an opinion piece in the Des Moines *Register* proposing that the state phase out tuition at public colleges and universities in the next four years and double the amount of student aid it provides to students attending private colleges.

Speaker Avenson said the state could afford the plan's $150-million annual price tag and insisted that "the time has come to provide 16 years of free public education."

Eliminating tuition also would help the state's economy, he said, because "education is a highly rated factor in attracting business and industry."

Gov. Terry E. Branstad, a Republican who is expected to seek re-election next year, has ignored the proposal and has declined to comment on it directly.

Governor Branstad's press secretary noted, however, that a similar plan had received a cool reception from the Democrat-controlled General Assembly's education task force.

Others have attacked Mr. Avenson's plan. Scott A. Clark, president of an Iowa management-consulting firm, said: "Whenever politics, particularly a gubernatorial race, gets in the way of realism, we always seem to be inundated with incredible promises."

Mr. Clark said his response was "not political but fiscal." Instead of free tuition, Mr. Clark maintained that the state should concentrate on providing loan guarantees to students and encouraging business development so that Iowa's technical- and professional-school graduates will be able to find employment at home.

■

Former House Speaker Jim Wright may be out of office, but his legacy will live on at Texas Christian University. The Fort Worth institution has obtained the office furniture that Mr. Wright had as Speaker, along with some memorabilia and collected papers from his 34-year career in Washington.

The collection, which will be housed at the Mary Couts Burnett Library, will be invaluable to future scholars, said the library's director of special collections, Roger Rainwater.

He said that even though the Speaker was forced to retire under a cloud of alleged ethics violations, the collection is very significant.

"For this district, Jim Wright was incredibly important," Mr. Rainwater said. "It's unfortunate that he left office the way he did, but he played a vital role during the Reagan Administration."

Plans call for a "Jim Wright room," where the former Speaker's office furniture and memorabilia will be on display.

Government & Politics

House Passes Bill to Freeze Student Aid and Increase Financing of Other College Programs and NIH

365-to-58 vote gives big increases for AIDS research and to help disadvantaged schoolchildren

By THOMAS J. DeLOUGHRY

WASHINGTON

The House of Representatives last week voted 365 to 58 in favor of a bill that would effectively freeze spending for student aid and increase financing for other college programs and the National Institutes of Health in the next fiscal year.

The lopsided vote reflected the bipartisan support demonstrated for the bill during debate on the floor of the House. The bill would provide $155.2-billion, beginning October 1, for programs in the Departments of Education, Health and Human Services, and Labor.

Student-aid programs would receive an overall increase of 3.6 per cent, and other nigher-education programs would grow by 12.2 per cent. The National Institutes of Health would get 7.5 per cent more than this year and financing for AIDS research would increase by 25 per cent. The annual rate of inflation is 5.2 per cent.

Members of Congress on both sides of the aisle praised Rep. William H. Natcher, Democrat of Kentucky and chairman of the appropriations subcommittee responsible for the bill. They were particularly supportive of the $400-million increase for AIDS research and an additional $1.5-billion to help disadvantaged students at elementary and secondary schools.

A table showing 1989 spending for education and research and the appropriations in the House bill appears on Page A16.

Committee's Levels Pass Unchanged

The appropriations bill was passed without any changes in the spending levels recommended by the appropriations subcommittee.

The decision by Mr. Natcher's panel not to finance a controversial study of sexual habits was not debated in the House. AIDS researchers had favored the survey as a way of finding out more about the prevalence of sexual practices that lead to the spread of the disease, but some members of Congress said it would be inappropriate to use federal funds to study such a topic (*The Chronicle*, August 2).

The freeze on spending for student aid was ordered by Mr. Natcher as a way of sending a message to colleges and schools that they must curb student-loan defaults and cut fraud in other aid programs. Defaults in the Stafford Student Loan Program are expected to cost the federal government $1.9-million in fiscal 1990.

Higher-education lobbyists, angered by the freeze, have vowed to press for increases in aid programs when the Senate considers its appropriations bill next month.

'A Scandalous Problem'

The loan-default issue was discussed during consideration of the bill on the House floor by Rep. Marge Roukema, Republican of New Jersey, who has introduced legislation to cut defaults. "This is a scandalous problem, and it's one that is

Continued on Page A16

New System to Process Financial-Aid Forms Is Announced by the Education Department

WASHINGTON

The Education Department last week announced a new system for processing financial-aid forms in which more companies will be involved than ever before.

The change could lead to decreased costs for students, experts say, as new companies vie for the right to handle financial forms at each institution. At least two of the new companies have offered to process forms at no cost to students—a service that now costs $7 or more.

The system, which is to go into effect for processing forms for the 1990-91 academic year, has been eagerly awaited by financial-aid administrators, who say it must be in place by the time they begin distributing forms to students in December.

All involved concede that the system may cause some initial confusion, primarily because each company will have its own financial-aid form. But Education Department and company officials say any confusion will be cleared up quickly.

The student-aid industry, which processes about six million forms a year, has been dominated for the past 11 years by the College Board's College Scholarship Service and the American College Testing Program.

Illinois and Pennsylvania, citing the need to ask students particular questions to determine eligibility for state scholarships, have devised their own forms and contracted with other companies for processing.

Under the system announced last week, the Education Department awarded new contracts to five companies, each of which will be allowed to offer services on a national basis.

The change was eagerly awaited by financial-aid experts and could lead to lower costs for students as new companies vie for contracts at institutions.

The five include the two companies that have previously dominated the industry; CSX Technology and the Pennsylvania Higher Education Assistance Authority, the companies that to date have operated in Illinois and Pennsylvania, respectively; and United Student Aid Funds, an Indian-

Continued on Page A22

Higher-Education Agencies Urge Crackdown on Trade-School Accrediting Groups

By GOLDIE BLUMENSTYK

ROCKPORT, ME.

Fearing that all colleges are being hurt by the actions of some unscrupulous for-profit trade schools, leaders of state higher-education agencies want the federal government to crack down on the associations that accredit the schools.

The sentiment surfaced as the national organization of the state agencies, the State Higher Education Executives Officers, decided at its annual meeting here last week to take a broader look at the issue of accreditation and licensing of all post-secondary institutions.

The SHEEO members said the attention was necessary because of the proliferation of for-profit trade schools and the growing practice by non-profit institutions of establishing far-flung branch and "storefront campuses," and courses through telecommunications. Those developments have created an environment in which students can no longer rely on an institution's accreditation as an assurance of quality at all of its locations, state officials said.

Alarmed by Findings

Members said they were also alarmed by the findings in a series of federal and state reports that most of the defaults on federally guaranteed loans were taking place at for-profit institutions, also known as proprietary schools. In addition, they said they were worried by reports that some of those institutions were enrolling needy students so that they could receive the students' federal-aid money for tuition, but were not providing them with suitable academic programs.

"None of us likes the concept of people ripping off aid for needy people," said Norma Foreman Glasgow, commissioner of higher education in Connecticut.

James R. Mingle, SHEEO's executive director, said the publicity also appears to be having an effect on Congress, where the House of Representatives just voted to freeze spending on student aid for the 1990 budget year.

The problems of proprietary schools and high default rates are "poisoning the well for all of higher education," he said.

Several of the state-agency leaders said they believed the default rate could be reduced and less student-aid money wasted if the Department of Education would more closely monitor the agencies whose accreditation determines which institu-

Continued on Page A15

Education and Research Money in House Appropriations Bill

In the Department of Education

	Fiscal 1989 Actual spending	Fiscal 1990 President's request	Fiscal 1990 Approved by House
Student assistance			
Pell Grants	$4,483,915,000	$4,740,000,000	$4,740,000,000
Supplemental Grants	437,972,000	452,863,000	452,863,000
College Work-Study	610,097,000	610,097,000	610,097,000
Income-contingent loans	4,940,000	20,000,000	10,000,000
State Student Incentive Grants	71,889,000	0	50,000,000
Perkins Loans	205,507,000	22,000,000	159,000,000
Stafford Student Loans*	4,066,852,000	3,192,234,000	3,651,000,000
Paul Douglas Teacher Scholarships	15,235,000	0	14,235,000
Graduate support			
Patricia Roberts Harris Graduate Fellowships	15,711,000	16,245,000	16,245,000
Jacob K. Javits Fellowships	7,904,000	5,770,000	6,770,000
Patricia Roberts Harris Public-Service Fellowships	3,320,000	0	3,320,000
Minority Participation Graduate Fellowships	3,476,000	3,594,000	3,594,000
Graduate Assistance in Areas of National Need	12,844,000	11,945,000	17,000,000
Institutional assistance			
Cooperative education	13,622,000	0	13,622,000
Developing institutions			
Aid for historically black colleges	73,554,000	76,055,000	85,000,000
Institutional support	77,459,000	80,093,000	83,000,000
Endowment Challenge Grants	12,696,000	13,128,000	23,128,000
Facilities			
College-housing and academic-facilities loans and construction insurance	31,315,000	5,129,000	35,129,000
Interest-subsidy grants	22,744,000	22,744,000	22,744,000
International education	31,058,000	30,317,000	40,317,000
Law School Clinical Experience	3,952,000	0	5,000,000
Veterans' Education Outreach	2,838,000	0	2,838,000
Bilingual education			
Bilingual vocational training	3,771,000	0	3,9[illegible]0,000
Training grants	30,413,000	30,413,000	32,413,000

	Fiscal 1989 Actual spending	Fiscal 1990 President's request	Fiscal 1990 Approved by House
Library resources			
Research libraries	$5,675,000	$5,675,000	$5,675,000
Training and demonstration	709,000	709,000	709,000
College library technology grants	3,651,000	3,651,000	3,651,000
Aid to disadvantaged			
College-aid migrant programs	1,482,000	1,482,000	1,482,000
Legal Training for the Disadvantaged	1,892,000	1,956,000	2,500,000
Minority Institutions Science Improvement	5,307,000	5,487,000	5,487,000
Programs for disadvantaged students	219,257,000	228,168,000	248,168,000
Education research and statistics			
Education research	47,079,000	50,960,000	57,010,000
Education statistics	31,122,000	37,370,000	38,320,000
Education for the handicapped			
National Institute on Disability and Rehabilitation Research	53,525,000	52,883,000	52,883,000
Research and development	17,026,000	17,026,000	17,026,000
Personnel development	67,095,000	67,095,000	67,095,000
Rehabilitation training	30,500,000	30,134,000	30,134,000
Postsecondary programs	5,770,000	5,770,000	5,770,000
Miscellaneous			
Adult education	162,210,000	172,665,000	208,796,000
Fund for the Improvement of Postsecondary Education	11,856,000	11,856,000	11,856,000
Office for Civil Rights	41,635,000	45,178,000	45,178,000
Teacher training	151,434,000	155,347,000	113,346,000
Vocational education grants	831,566,000	0	860,000,000
Women's educational equity	2,949,000	0	2,949,000
School, College and University Partnerships	2,760,000	2,854,000	2,854,000

In the Department of Health and Human Services

	Fiscal 1989 Actual spending	Fiscal 1990 President's request	Fiscal 1990 Approved by House
Scientific research			
National Institutes of Health			
Cancer Institute	$1,570,943,000	$1,646,073,000	$1,652,666,000
Heart, Lung, and Blood Institute	1,045,732,000	1,082,497,000	1,090,930,000
Institute of Dental Research	130,834,000	135,796,000	138,053,000
Institute of Diabetes, Digestive, and Kidney Diseases	559,648,000	582,629,000	590,276,000
Institute of Neurological and Communicative Disorders and Stroke and Institute on Deafness and Other Communication Disorders	567,179,000	593,404,000	595,155,000
Institute of Allergy and Infectious Diseases	742,277,000	842,712,000	845,523,000
Institute of General Medical Sciences	654,664,000	682,249,000	692,639,000
Institute of Child Health and Human Development	425,532,000	444,193,000	448,493,000
Eye Institute	231,292,000	239,474,000	240,636,000
Institute of Environmental Health Sciences	223,695,000	230,848,000	232,479,000
Institute of Arthritis, Musculoskeletal, and Skin Diseases	160,015,000	168,588,000	171,673,000

	Fiscal 1989 Actual spending	Fiscal 1990 President's request	Fiscal 1990 Approved by House
National Institutes of Health, continued			
Institute on Aging	$222,845,000	$230,490,000	$241,528,000
Research Resources	358,332,000	307,956,000	356,128,000
Center for Nursing Research	29,132,000	30,969,000	32,969,000
International Center	14,002,000	15,532,000	15,579,000
Library of Medicine	74,413,000	78,729,000	83,311,000
Total N.I.H.	7,144,819,000	7,529,397,000	7,678,625,000
Health research and training			
Alcohol, Drug Abuse, and Mental Health Administration			
Mental health research and research training	354,464,000	380,110,000	389,110,000
Centers for Disease Control			
Occupational safety and health research and training	70,355,000	70,355,000	73,900,000

* Formerly called Guaranteed Student Loans

House Votes 365 to 58 to Freeze Student Aid and Increase Financing of Other Programs

Continued from Page A13

growing, and I think it's one we ought to be paying attention to as we're appropriating this money," she said.

"We've got to have legislation next year that goes to the heart of this problem, that stops the scandal and recoups those moneys that are in default for those students who are truly deserving," said Ms. Roukema, a member of the House Subcommittee on Postsecondary Education.

"Too many students are going without proper education, the government is being bilked, and taxes are being lost not only in the proprietary-school area but also in the general student-loan program," she said.

Among those speaking against the spending bill was Rep. William E. Dannemeyer, Republican of California, who expressed concern about increasing spending by $13-billion over this year's level at a time when the federal budget deficit is so large.

"This type of appropriation is leading the nation to bankruptcy," Mr. Dannemeyer said. "It does not express a sense of any recognition of the fact that this year we're adding $261-billion to the debt of the United States government."

Drug-Free Campuses

The lone amendment attached to the spending bill was sponsored by Rep. E. Clay Shaw, Republican of Florida. The amendment states that "colleges and universities should demand drug-free campuses and should, with the support of students, parents, and communities, enforce strict but fair policies to eliminate drug use by students."

"It is too seldom that the universities and colleges of our country have an actual stated policy that is made known to the student body," Mr. Shaw said.

Several members of Congress spoke on the floor in support of the bill, singling out the large increase in spending for AIDS research for particular praise.

Rep. Henry A. Waxman, Democrat of California, was one of several representatives who worried that the failure to earmark research funds especially for AIDS could allow the funds to be used for other research.

Mr. Natcher, the subcommittee chairman, defended his panel's action, saying that the members were committed to fighting the epidemic. The change, he said, "merely suggests the committee's view that AIDS funding should go through the same quality control and peer review as non-AIDS funds."

House Committee Approves $345-Million More Than Bush Asked for Pentagon Research Funds

WASHINGTON

The House Appropriations Committee last week approved a Defense Department spending bill that includes a $345-million increase over the Bush Administration's request for basic and applied research.

The panel approved a total of $3.6-billion for university-related research and matched the Administration's request for the University Research Initiative, keeping it at $96-million, about the same as last year.

The bill was scheduled to go to the full House for consideration late last week.

The increase for research was made in "a single lump sum in order to allow the Defense Department maximum flexibility in allocating funds to the highest research priorities," the panel said in the report accompanying the bill.

The committee also directed the department to improve the geographical diversity of institutions receiving research grants. It noted that the five states that now receive the most money in federal research support get more than 50 per cent of all federal grant money, while the bottom 16 and Puerto Rico together receive less than 2 per cent of all grant funds.

The panel requested that the department submit a report by January 1 on the current geographic breakdown of colleges and universities receiving grants, as well as on ways in which the department and other federal agencies that conduct research could cooperate with states to broaden the distribution of federal research money. —C.M.

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News Summary

NOTICE

The next issue
of The Chronicle,
dated September 6,
will be mailed September 1.

Articles on inside pages

Oceanographers are embarking on a 10-year survey of the sea to gain a better understanding of its relationship to climate change: Page A6.

Three in four faculty members think undergraduates are underprepared, a study has found: Page A13.

Colleges should be denied federal aid if they do not have policies forbidding illegal drug use, William J. Bennett said: A15.

Updated statistics on defaults in the Stafford Student Loan Program show the national rate declining to 17 per cent: Page A15.

Colleges found profitable uses for campuses this summer: Page A21.

A summer medical program tries to help minority students start careers as doctors: Page A25.

The N.C.A.A. might allow freshman athletes who fail to meet minimum academic standards to receive non-sports financial aid: Page A33.

Non-academic employees in Brazilian universities have more influence in academic politics than professors, faculty members recently learned again: Page A34.

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CHARGES UP 5 TO 9 PCT.

For Most, Cost of Going to College Outpaces Inflation Again; U.S. Probes Tuition and Student Aid on 20 Private Campuses

U.S. Probe

By GOLDIE BLUMENSTYK
and CHRISTOPHER MYERS

WASHINGTON

The Department of Justice has ordered about 20 private colleges and universities to turn over extensive financial records for an inquiry into whether the institutions violate federal antitrust laws in the way they set tuition rates and award financial aid.

The investigation appears to center on many leading private colleges' practice of exchanging some information about applicants so that students receive comparable financial-aid offers from them. Most of the colleges that confirmed they were under investigation participate in such exchanges, which have been going on and been acknowledged for years.

College officials said last week that they would cooperate with the Justice Depart-

Continued on Page A26

Year-by-Year Changes in Tuition and Fees at 4-Year Institutions

	Public	Private
1977-78	0%	+6%
1978-79	+5%	+7%
1979-80	+6%	+9%
1980-81	+4%	+10%
1981-82	+16%	+13%
1982-83	+20%	+13%
1983-84	+12%	+11%
1984-85	+8%	+9%
1985-86	+9%	+8%
1986-87	+6%	+8%
1987-88	+6%	+8%
1988-89	+5%	+9%
1989-90	+7%	+9%

SOURCE: THE COLLEGE BOARD

Cost

By JEAN EVANGELAUF

Average tuition charges will rise from 5 per cent to 9 per cent this fall, and most students will face increases in the cost of attending college that exceed the rate of inflation.

In releasing its annual survey of college costs last week, the College Board reported that in 1989-90:

- At four-year private colleges and universities, undergraduate tuition will average $8,737, up 9 per cent over last year.
- At two-year private colleges, undergraduate tuition and fees will rise 7 per cent, to an average of $4,713.
- At four-year public colleges and universities, undergraduate tuition for state residents will increase 7 per cent, to an average of $1,694.
- At two-year public colleges, tuition

Continued on Page A26

American Indians Seek Moratorium on Studies of Skeletal Remains

By CHRIS RAYMOND

VERMILLION, S.D.

Two groups representing American Indians called last week for a worldwide moratorium on the scientific analysis of anthropological remains until the wishes of the tribes to which the remains are traced can be determined.

The moratorium was one of several proposals approved at an international meeting of archaeologists at the University of South Dakota here. For the first time, more than 200 archaeologists and representatives of groups that represent the indigenous people of Africa, Australia, India, New Zealand, and the United States met to discuss the ethics and treatment of anthropological remains.

According to the moratorium resolution, which was introduced by the International

Continued on Page A8

American and Soviet Scholars Work on Proposals to Guarantee Human Rights in Both Societies

By ELLEN K. COUGHLIN

BERKELEY, CAL.

Hoping to capitalize on the new era of cooperation between their two countries, a small group of American and Soviet scholars is working on a series of proposals for guaranteeing human rights in their respective societies.

In past years the issue of human rights has been a major stumbling block in U.S.-Soviet relations, causing even scholarly exchanges and cooperative research projects to falter. But more than a dozen researchers from both countries who gathered at a conference at the University of California campus here last week seemed determined to surmount that barrier.

"Before, we criticized each other and tried to find each other's mistakes," said Vladimir Kartashkin, a professor of international law at Patrice Lumumba University in Moscow. "Now we have to find common ground. Both countries have made mistakes. We can learn from each other."

First Part of Major Project

The nine-day conference, scheduled to continue through this week, is the first part of a major human-rights project sponsored by the American Council of Learned Societies and the Institute for State and Law of the Soviet Academy of Sciences.

In similar meetings over the course of

Continued on Page A14

Financial Pressures Threaten Private Research Universities

Financial pressures are forcing a significant number of private research universities to curtail academic and administrative activities: Page A21.

Female Basketball Players Outperform Their Male Counterparts in the Classroom

By DOUGLAS LEDERMAN

Although male and female basketball players in big-time programs score comparably on standardized tests and spend an equal amount of time on the basketball court, the women outperform the men in the classroom, a National Collegiate Athletic Association study has found.

The difference in academic success may be most directly attributable to the fact that female players spend five more hours a week preparing for class than do male players, said Robert A. Rossi, the chief researcher on the study.

It also results, he said, from the female players' superior preparation for college. Seventy-eight per cent of the Division I female basketball players surveyed had a high-school grade-point average of B or better, compared to 55 per cent of the male players.

'Better Study Habits and Skills'

"Because there isn't as much opportunity for professional sport, women seem to be thinking of college more for the educational value than as an opportunity to develop sports skills," said Mr. Rossi, research scientist at American Institutes for Research, which conducted the study. "As a result, the women seem to come to college having developed better study habits and skills."

The most troubling question that the report poses for the future, Mr. Rossi said, is, Can colleges do anything to make their male athletes more like the women, academically, or will female basketball players begin to mimic the men as their sport continues to grow in popularity and intensity?

The study itself did not begin to consider such policy questions, which will be left to sports officials and groups like the

Continued on Page A33

MARGINALIA

From the *Syracuse* [University] *Record:*

"The new main lodge for Minnowbrook Conference Center, opening this month, will be equally elegant yet have a more restive atmosphere."

That's the way we like it: elegant and unruly.

■

A summer issue of *Semaphore*, a calendar of events at South Georgia College, lists a "Youth Conference for the Church of Jesus Christ of Ladder Day Saints."

■

Northeastern University's *Northeastern News* quotes its own executive editor as saying at a campus forum:

"Northeastern has placed far to much attention on the benefits of co-op and far to little on academics."

Evidently.

■

The same issue of *Northeastern News* contains a front-page blurb for a Page 9 article on a showing of students' works of art and architecture. The blurb is headlined:

STUDENT EXHIBITIONISTS

■

Memorandum received by the chemistry department at Kent State University:

"Please use caution when using the hot water in Williams Hall. There is air trapped in the lines and until the lines are regulated the water may come out scolding for the next few days."

You'd be upset, too, if you had air in your lines.

■

Picture caption in the *Library Staff Newsletter* of the Jean and Alexander Heard Library at Vanderbilt University:

"Professor Igor Kavass, director of the Law Library, and Elaine Goleski, project manager for the Library Annex, open one of 120 cartons containing *the Diario Oficial*, which arrived in June from Colombia. . . . Permission of the government was granted for the complex shipping project, including numerous safeguards against tampering and special arrangements through the U.S. Embassy in Colombia, because an official with the Colombian government knew of Vanderbilt's reputation."

We're sorry to learn it has spread so far.

■

An ad in the Warsaw (N.Y.) *Pennysaver* seeks:

Chairperson
(part-time)
Committy on Special Education

—C.U.

In Brief

A First: Woman to Head West Point Cadets

WEST POINT, N.Y.—A 21-year-old female cadet has become the first woman in the history of the United States Military Academy to be selected as first captain of the Corps of Cadets, the academy's highest cadet honor.

Kristin M. Baker (*below*), the daughter of an Army colonel, will lead West Point's brigade of 4,400 cadets for the academic year that starts this week. Her duties will include being responsible for the overall performance of the cadets and serving as their commander during ceremonies. Each year one senior is selected to be brigade commander and first captain based on academic success, athletic ability, and military expertise.

AP/WIDE WORLD

Before Ms. Baker's appointment, a few women had held deputy positions. While the 187-year-old academy has accepted women since 1976, they make up only 10 per cent of the student body.

Agency Approves Plan to Take Land for Campus

SACRAMENTO, CAL.—The California Public Works Board has authorized the start of eminent-domain proceedings to acquire a 440-acre site in Ventura, north of Los Angeles, for a new campus of the California State University System.

However, the system is negotiating with owners of the 8,000-acre Taylor Ranch and hopes to purchase the 440 acres it needs for a new campus without resorting to legal condemnation of the site, said Jack Smart, vice-chancellor of the 19-campus system.

The system's Board of Trustees authorized purchase of the site, and the state Legislature voted $8-million to acquire the land.

Ex-Student Sentenced in Murder of 2 Boys

NEVADA, IOWA—Dale E. Royer, a former Iowa State University graduate student who set fire to a house that one of his professors lived in, will serve two consecutive life sentences for the murder of the professor's two sons. The boys died in the 1986 fire.

The professor, Deepinder Sidhu, had given Mr. Royer an incomplete in a computer-science course.

Story County District Court Judge Carl E. Peterson sentenced Mr. Royer, who was convicted on the same charges two years ago. That decision was thrown out because of improper court procedures.

Mr. Royer said he had been suffering from a mental illness before setting fire to the house. He said he had not intended to kill Mr. Sidhu's sons.

University officials say Mr. Royer dropped out of the university before the arson. Mr. Sidhu has since left Iowa State.

Harvard Sues Company Over Biomedical Patent

CAMBRIDGE, MASS.—Harvard University has sued a Swedish pharmaceutical company, charging that it is violating a patent on a biomedical process discovered by two university researchers.

The suit, filed in U.S. District Court in Newark, N.J., claims that the company, known as Pharmacia, and three of its American subsidiaries are selling kits used in research for determining the structure of genetic material. According to the suit, the technique was patented by Harvard, which licensed its use to the U.S. Biochemical Corporation of Cleveland. The Ohio company has joined Harvard in the suit.

Stephen H. Atkinson, director of the Harvard Medical School's licensing office, said the action marked the first time the university had filed a suit since it began patenting the discoveries of its researchers. The gene-sequencing technique earns a significant portion of Harvard's $1.2-million annual income from 75 biomedical patents it holds, Atkinson said.

FACT FILE: Number of Colleges by Enrollment, Fall 1987

	Universities	Other 4-year institutions	2-year institutions	All institutions
Public institutions				
Under 200	0	1	6	7
200 to 499	0	11	29	40
500 to 999	0	29	102	131
1,000 to 2,499	0	107	308	415
2,500 to 4,999	1	103	215	319
5,000 to 9,999	7	134	175	316
10,000 to 19,999	30	91	99	220
20,000 to 29,999	34	18	21	73
30,000 or more	22	2	4	28
All	94	496	959	1,549
Private institutions				
Under 200	0	283	117	400
200 to 499	0	235	160	395
500 to 999	0	307	86	393
1,000 to 2,499	0	423	40	463
2,500 to 4,999	6	139	3	148
5,000 to 9,999	24	43	1	68
10,000 to 19,999	24	7	2	33
20,000 to 29,999	5	0	0	5
30,000 or more	3	0	0	3
All	62	1,437	409	1,908
All institutions				
Under 200	0	284	123	407
200 to 499	0	246	189	435
500 to 999	0	336	188	524
1,000 to 2,499	0	530	348	878
2,500 to 4,999	7	242	218	467
5,000 to 9,999	31	177	176	384
10,000 to 19,999	54	98	101	253
20,000 to 29,999	39	18	21	78
30,000 or more	25	2	4	31
All	156	1,933	1,368	3,457

Note: Figures exclude approximately 130 institutions that did not report enrollment.

SOURCE: U.S. DEPARTMENT OF EDUCATION

U. Hospital Seeks Funds for Indigent-Patient Care

ORANGE, CAL.—The medical center at the University of California at Irvine, which in June began turning away some patients when its obstetrical unit's capacity was reached, now may cancel its contract with Medi-Cal, the state program for indigent care.

The university system's Board of Regents has voted to authorize the 493-bed medical center to terminate the contract if negotiations to increase reimbursement rates to hospitals and to expand the dwindling number of hospitals servicing Medi-Cal patients are unsuccessful.

The hospital began diverting obstetrical patients to other institutions after a number of facilities in Orange County dropped out of the Medi-Cal program and the Irvine center was flooded with patients, university officials said.

Under current policy, Medi-Cal pays only about 60 per cent of a hospital's expenses for its patients, and the medical center has estimated an operating loss of nearly $12-million for the fiscal year that ended June 30.

5 Fraternities Closed for Fire-Code Violations

EUGENE, ORE.—Five fraternities at the University of Oregon have been ordered closed by the city Fire Marshal here for a variety of safety violations, forcing

Deficit-Ridden U. of Bridgeport Gets $10.2-Million Loan

BRIDGEPORT, CONN.

A consortium of area banks has stepped in to help the ailing University of Bridgeport out of its deficit troubles.

With $22-million worth of university property as collateral, eight banks have granted Bridgeport a five-year loan of $10.2-million and an additional $2.5-million line of credit.

Officials here said they believed the university, which was operating with a $10.2-million deficit accrued over the past three years, should have a balanced budget by June 1991, with a surplus of $827,230.

"We view this as very good news," said Bridgeport's president, Janet D. Greenwood. "We are very pleased to have been given the support of members of the banking community. This is an important step in our financial recovery plan."

That plan includes trimming operating costs, designing new means of fund raising, and decreasing the number of faculty and staff positions, a university spokeswoman said.

New Part-Time Program

Among other things, she said, it emphasizes the money-making potential of an accelerated degree-completion program for adults begun here last November. The program, at the university's Metropolitan College, is reported to have had a successful start, with enrollments increasing.

So far, the university has eliminated 69 faculty and staff positions. Some employees were asked to go, while others, including about 16 professors who accepted an early-retirement plan, have left on their own.

The majority of faculty members feel the university's financial plan is unrealistic and academically shortsighted, according to Alfred G. Gerteiny, a professor of Middle Eastern and African history who is president of the campus's chapter of the American Association of University Professors.

The notion that the university will be operating with a surplus by the end of the 1991 fiscal year "sounds rather fantastic," he said, adding, "It seems to us that diminishing the faculty—in other words, impoverishing the programmatic capacity of the university—and betting on Metropolitan College to bail out the university, is somewhat Alice in Wonderlandish." —ELIZABETH GREENE

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For Most, Cost of College Again Outpaces Inflation

Continued from Page A1

for state residents will average $842, 5 per cent higher than last year's.

Those figures are based on costs at 1,892 colleges and universities and are weighted by enrollment.

For each of the last eight years, the price of college has outrun inflation, and the majority of students will see that trend continue in 1989-90. For the 12 months ending in June, the rate of inflation as measured by the Consumer Price Index was 5.2 per cent. Tuition increases will lag behind inflation only at community colleges, which enroll about 36 per cent of the nation's 12.7 million college students.

In a statement accompanying the tuition report, Donald M. Stewart, president of the College Board, sought to assure families that higher education was still within reach. "Planning is the key to paying for college today," he said, "with financial aid providing the boost over the top for many families." He urged prospective students not to choose a college on the basis of price alone, noting that some five million students would receive a record $26-billion in grants and loans this year.

Fear of 'Growing Gap'

Commenting on the tuition report, Secretary of Education Lauro F. Cavazos said in a statement that he was "increasingly concerned about the growing gap between the price of higher education and what students can afford." He said he would work to insure access to higher education, and called on college presidents to help in that effort by trying to hold down costs. "As a former university president, I understand the conflicting pressures they face, but accessible education must be our common objective," he said.

Taking into account all expenses—tuition, fees, room, board, books, transportation, and personal items—the average bill for students who live in campus housing will be $14,326 at four-year private institutions, $6,671 at four-year public colleges, and $9,650 at two-year private colleges. Students who live at home may expect to save from $1,350 to $2,000, depending on the type of institution they attend.

Because of a small sample size, the board did not calculate costs for resident students at community colleges. For commuter students at such institutions, total costs will average $4,541.

Four-year public institutions will charge undergraduates who are not state residents an average of $2,684 for tuition, and two-year public colleges will charge those who are not state residents an average of $1,992 for tuition, the report said.

In a switch from its past practice, this year the College Board did not release a list of the most expensive and least expensive institutions.

A 'Considered Decision'

According to Janice A. Gams, a board spokeswoman, the organization had made a "considered decision" not to provide the press with such a table. "When we released it we began to see headlines screaming about the most expensive colleges," said Ms. Gams. "We're afraid that people will throw up their hands and not consider college because of what they read. We're trying with our report to draw attention to the means, not to the outliers."

In 1989-90, 172 private colleges will charge tuition of at least $10,000, and 30 of those institutions will charge tuition of $14,000 or more, according to the board's report.

Based on the board's state-by-state listing of costs at more than 2,400 colleges and universities, the most expensive institution is Landmark College, with tuition charges of $18,850, followed by Bennington College, with tuition charges of $16,495.

In explaining the increases at private colleges, Richard F. Rosser, president of the National Association of Independent Colleges and Universities, pointed to faculty salaries. "Salaries were never high to start with, and they're still behind where they were in 1972 after taking inflation into account," he said.

Meeting 'Stiff Competition'

Moreover, he said, private colleges have had to increase pay in an effort to meet the "stiff competition" with public institutions and with industry in hiring doctoral recipients.

Financial aid is another major factor behind this fall's cost increases, according to Mr. Rosser, who estimated that private colleges would spend at least $3.5-billion on student aid this year.

"Private colleges have had to put more resources into aid to offset the decline, in real terms, in federal dollars going to students," he said. "We're trying to keep our schools accessible to people from all walks of life."

1989-90 College Costs

	Public colleges		Private colleges	
	Resident	Commuter	Resident	Commuter
4-year colleges				
Tuition and fees	$1,694	$1,694	$8,737	$8,737
Books and supplies	454	454	459	459
Room and board*	3,039	1,371	3,898	1,501
Transportation	442	733	414	714
Other	1,042	1,065	818	910
Total	$6,671	$5,317	$14,326	$12,321
2-year colleges				
Tuition and fees	$ 842	$ 842	$4,713	$4,713
Books and supplies	438	438	424	424
Room and board*	—	1,465	3,258	1,324
Transportation	—	846	423	651
Other	—	950	832	750
Total	—	$4,541	$9,650	$7,862

* Room not included for commuter students
— Insufficient data

SOURCE: THE COLLEGE BOARD

Range of 1989-90 Tuitions at 4-Year Colleges

	Number of colleges	Average tuition and fees	Proportion of total enrollment
Private institutions			
$14,000 or more	30	$14,387	7.6%
$13,000 — $13,999	42	$13,497	10.3%
$12,000 — $12,999	20	$12,494	3.3%
$11,000 — $11,999	31	$11,540	5.5%
$10,000 — $10,999	49	$10,490	6.3%
$9,000 — $9,999	79	$9,424	10.0%
$8,000 — $8,999	106	$8,487	12.4%
$7,000 — $7,999	136	$7,482	14.2%
$6,000 — $6,999	142	$6,469	10.2%
$5,000 — $5,999	102	$5,504	8.1%
$4,000 — $4,999	75	$4,507	5.1%
$3,000 — $3,999	58	$3,516	2.8%
$2,000 — $2,999	41	$2,539	1.6%
$1,000 — $1,999	7	$1,535	2.2%
Less than $1,000	5	$259	0.4%
Total	923	—	100.0%
Public institutions			
$3,000 or more	11	$3,284	1.8%
$2,000 — $2,999	65	$2,383	24.4%
$1,500 — $1,999	114	$1,722	30.9%
$1,000 — $1,499	119	$1,295	28.4%
$500 — $999	38	$868	14.0%
Less than $500	5	$393	0.5%
Total	352	—	100.0%

Note: Includes only those institutions that provided final or estimated 1989-90 tuition and fees by June 21, 1989

SOURCE: THE COLLEGE BOARD

Justice Department Looks Into Fees and Student Aid on 20 Private Campuses

Continued from Page A1

ment, but they maintained that they were violating no laws.

Sheldon E. Steinbach, general counsel for the American Council on Education, said that antitrust laws were intended to regulate businesses, not educational institutions, and questioned the Justice Department's intentions.

"I find it unusual in that the Administration would like to utilize their reasonably scarce resources in this area," he said.

William R. Cotter, president of Colby College, one of the institutions involved, said: "There's really nothing to hide. We want to work with them and see what the concerns are."

Many college officials speculated that the Justice Department's interest might have been piqued by a May account in the *Wall Street Journal* that described 23 prestigious Northeastern institutions' decades-old practice of meeting annually to discuss the financial needs of their applicants.

Vast Amounts of Data

The Justice Department would not identify the colleges it is focusing on, or specify what information it was seeking. Sources, however, said the department had specifically asked for copies of any "agreements affecting tuition and fees."

The department also asked the colleges to supply, by the end of this week, vast amounts of data related to how colleges have set their budgets, salaries, and financial-aid packages since 1985.

A Justice department spokeswoman declined to say what had prompted the inquiry.

But the spokeswoman, Gina Talamona, did confirm that the "civil investigative demands," which are similar to subpoenas, did refer to possible violations of the Sherman Antitrust Act. That law, passed in 1890, bars agreements "in restraint of trade" and has been the basis for legal action against price-fixing among various companies.

Most of the institutions reported they had received the Justice Department demands about three weeks ago.

In addition to Colby, 12 colleges and universities acknowledged receiving them. They are Amherst, Bates, Bowdoin, Connecticut, Hamilton, Middlebury, Trinity (Conn.), and Williams Colleges; Harvard, Tufts, and Wesleyan Universities; and the University of Chicago.

> **"The right of the students to be the subject of competitive bidding is exactly what the antitrust laws would want to cover."**

Except for Bates, Chicago, Connecticut, and Hamilton, all of the institutions are members of the so-called "Overlap Group," whose representatives meet each year to discuss financial-aid requests from their often-overlapping pools of applicants. College leaders said they met to determine a consistent formula for deciding how much a family should be expected to contribute toward college tuition.

Officials at the rest of the universities that are members of the "Overlap Group," all but one either Ivy League institutions or women's colleges, said their institutions had not been contacted. Those institutions are Barnard, Bryn Mawr, Dartmouth, Mount Holyoke, Smith, Vassar, and Wellesley Colleges; Brown, Columbia, Cornell, Princeton and Yale Universities; the Massachusetts Institute of Technology; and the University of Pennsylvania.

Outside the Northeast, officials of several prestigious private colleges that are not members of the "Overlap Group" said they had not received inquiries from the Justice Department. Those included Johns Hopkins, Northwestern, and Stanford Universities.

College officials said that participating in the Overlap Group avoided bidding wars over students who had been accepted by more than one institution. Daniel Steiner, general counsel at Harvard, noted that the colleges had made no secret of the practice.

Colby's Mr. Cotter said it was "common sense" for institutions to want to be consistent in their financial-aid formulas.

He also questioned the department's suspicion about colleges' salary levels and tuition charges, noting that such figures are published routinely.

Mr. Cotter, who once practiced as an antitrust lawyer, said he did not agree that educational institutions could ignore antitrust laws or concerns. "Colleges, particularly, need to be in conformity with the spirit of what's expected of us."

Several legal scholars also said that colleges and universities are almost certainly subject to—but not necessarily in violation of—antitrust laws.

There is no "across-the-board exemption" from antitrust laws for non-profit organizations, said Edmund W. Kitch, professor of law at the University of Virginia. In fact, he said, antitrust law, which was originally set up to deal with large for-profit businesses, has "veered oddly" in the last 20 years and has been applied to a variety of non-profit organizations, including bar associations and hospitals.

'A Kind of Price'

The scholars said the colleges' practice of setting financial-aid levels could be particularly questionable under antitrust laws.

"The right of the students to be the subject of competitive bidding is exactly what the antitrust laws would want to cover," said one antitrust expert who asked not to be identified. "The idea of preventing colleges from bidding for the students they want the most would be seen as one of the most blatant offenses."

Eleanor Fox, professor of law at the New York University School of Law, said that "financial aid is a kind of price" and so would normally be subject to laws against price restraint. She said, however, that the "real and important question" was whether the activities of colleges and universities could be classified as "normal commercial business."

At the least, said Mr. Kitch of Virginia, the Justice Department inquiry probably will lead colleges to re-examine the method they use in setting tuition and financial-aid levels. At the most, he said, it could lead to a class-action lawsuit against the institutions involved.

1989-90 TUITION AND FEES AT MORE THAN 2,400 COLLEGES AND UNIVERSITIES

Following are the tuition and required fees charged undergraduates at more than 2,400 colleges and universities in the 1988-89 and 1989-90 academic years—including, for 1989-90, the additional tuition that many institutions charge out-of-state students.

An asterisk indicates that the institution provided estimated figures. The designation "n/a" indicates that 1988-89 figures were not available.

The figures were collected by the College Board in its Annual Survey of Colleges 1989, and the tuition report was prepared by the board's College Scholarship Service. (Copyright © 1989 by the College Entrance Examination Board. All rights reserved.)

The full report on tuition and fees, *The College Cost Book, 1989-90*, will be available next month for $13.95, prepaid, from College Board Publications, Box 886, New York 10101.

ALABAMA

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Ala Aviation & Tech C	$600	$600	$450
Alabama St U	1,074	1,056	960
Athens St C	1,080	1,090	1,080
Auburn U			
Main campus	1,323	1,476	2,952
Montgomery	1,155	1,215	2,430
Bessemer St Tech C	600	609	450
Birmingham Southern C	7,588	8,295	0
Bishop State JC	621	602	450
Brewer St JC	600	600	450
Central Alabama CC			
Alexander City	600	600	450
Childersburg	610	610	450
Chattahoochee Valley CC	600	600	450
D MacArthur St Tech C	600	610	450
Enterprise St JC	600	600	450
Gadsden St CC	600	610	450
G Wallace St CC Dothan	600	600	450
G Wallace St CC Selma	600	600	450
H M Ayers St Tech C	600	607	450
Hobson St Tech C	615	615	450
Huntingdon C	4,750	5,160	0
International Bible C	2,435	2,435	0
J F Drake St Tech C	602	605	450
J M Patterson St Tech C	600	600	450
Jacksonville St U	1,100	1,215	600
James H Faulkner St JC	600	600	450
Jefferson Davis St JC	605	605	450
Jefferson St JC	615	615	450
John C Calhoun St CC	600	600	450
Judson C	3,620	3,954	0
Lawson St CC	600	619	450
Lurleen Wallace St JC	600	600	450
Mobile C	4,070	4,380	0
Northeast Alabama St JC	600	600	450
Northwest Alabama CC			
Hamilton	600	600	450
Phil Campbell	600	600	450
Oakwood C	5,148	5,331	0
Patrick Henry St JC	600	600	450
Reid St Tech C	605	605	450
Samford U	4,530	5,500	0
Shelton St CC	600	600	450
Shoals CC	600	600	450
Snead St JC	600	605	450
Southeastern Bible C	3,240	3,240	0
Southern Union St JC	600	600	450
Southwest St Tech C	600	600	450
Spring Hill C	7,700	8,250	0
Stillman C	3,100	3,550	0
Talladega C	3,709	3,709	0
Trenholm St Tech C	606	606	450
Troy St U			
Dothan	1,110	1,254	360
Montgomery	1,125	1,180	585
Tuskegee U	4,850	5,300	0
U of Alabama			
Main campus	1,642	1,724	2,518
Birmingham	1,725	1,823	1,650
U of Montevallo*	n/a	1,684	1,090
U of North Alabama	1,090	1,152	460
U of South Alabama	1,626	1,767	600
Walker C	1,740	1,820	0
Walker St Tech C	602	614	450
Wallace St CC			
Hanceville	603	603	450

ALASKA

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Alaska Bible C	1,935	2,070	0
Alaska Pacific U	5,900	5,930	0
Sheldon Jackson C	4,896	4,896	0
U of Alaska			
Anchorage	970	1,166	2,028
Fairbanks	1,250	1,512	2,028
Prince Wm Sound CC	740	930	2,210
Southeast	946	1,112	2,028

ARIZONA

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
American Indian Bible C	2,842	2,842	0
Arizona St U	1,278	1,362	4,122
Arizona Western C	456	630	4,080
Central Arizona C	546	546	3,918
Cochise C	570	630	3,300
Eastern Arizona C	500	500	3,124
Embry Riddle			
Aero U Prescott	4,680	5,290	0
Grand Canyon U	3,750	4,465	0

ARIZONA—Continued

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Maricopa Co CC Dist			
Gateway CC	$675	$690	$3,750
Glendale CC	675	690	3,750
Mesa CC	675	690	3,750
Phoenix C	675	690	3,750
Rio Salado CC	675	690	3,750
Scottsdale CC	675	690	3,750
South Mountain CC	675	690	3,750
ITT Tech Inst			
Phoenix	n/a	11,017	0
Tucson	10,800	11,017	0
Mohave CC	480	480	2,900
National Ed Ctr Bryman	n/a	7,050	0
Northern Arizona U	1,278	1,412	3,592
Northland Pioneer C	144	240	2,820
Pima Co CC	480	504	2,700
Prescott C	5,410	6,415	0
U of Arizona	1,278	1,362	4,122
U of Phoenix	4,775	5,048	0
Yavapai C	536	562	3,816

ARKANSAS

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Arkansas C	4,810	5,330	0
Arkansas St U			
Main campus	1,220	1,410	1,250
Beebe	772	850	570
Arkansas Tech U*	1,080	1,080	1,050
Central Baptist C	2,000	2,025	0
Crowley's Ridge C*	3,006	3,160	0
Harding U	3,795	4,208	0
Henderson St U	1,070	1,070	1,050
Hendrix C	5,575	6,210	0
John Brown U	4,145	4,500	0
Mississippi Co CC	576	648	1,272
National Ed Ctr			
Arkansas C of Tech*	4,350	4,925	0
Ouachita Baptist U	3,930	4,410	0
Shorter C	1,700	1,860	0
Southern Arkansas U			
Main campus	1,080	1,080	630
El Dorado	720	720	360
Tech	720	720	360
U of Arkansas			
Main campus	1,280	1,472	2,238
Little Rock	1,250	1,475	2,120
Medical Sciences	n/a	1,443	2,267
Monticello	1,155	1,260	1,738
Pine Bluff	1,155	1,3[illegible]	1,738
U of the Ozarks	2,410	2,810	0

CALIFORNIA

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
American Armenian			
International C	n/a	9,211	0
Antelope Valley C	100	100	2,820
Antioch U			
Los Angeles	5,700	6,300	0
Santa Barbara	5,700	6,000	0
Art Center C of Design	7,916	9,035	0
Azusa Pacific U	7,160	8,180	0
Bakersfield C	110	110	2,820
Biola U	7,296	8,202	0
Brooks C	5,280	5,510	0
Brooks Inst	4,300	4,700	0
Butte C	155	165	3,800
California Baptist C	4,832	5,176	0
Cal C of Arts and Crafts	7,760	8,680	0
California Inst of the Arts	9,250	10,250	0
California Inst of Tech	11,789	12,489	0
California Lutheran U	8,350	8,750	0
Cal Maritime Acad	1,111	1,154	2,660
California St U			
Bakersfield*	792	870	5,670
Cal Poly St U			
San Luis Obispo*	760	826	5,670
Cal St Poly U Pomona*	760	826	5,670
Chico*	804	884	5,670
Dominguez Hills*	766	832	5,670
Fresno*	816	906	5,670
Fullerton*	856	922	5,670
Hayward*	799	865	5,670
Humboldt St U*	843	910	5,670
Long Beach*	794	862	5,670
Los Angeles*	789	864	5,670
Northridge*	876	942	5,670
Sacramento*	790	862	5,670
San Bernardino*	816	903	5,670
San Diego St U*	802	888	5,670
San Francisco St U*	800	870	5,670
San Jose St U*	850	936	5,670
Sonoma St U*	822	888	5,670
Stanislaus*	810	810	5,670
Cerro Coso CC	100	100	2,670
Chaffey CC	100	102	2,880
Chapman C	10,600	11,450	0
Charles R Drew U	n/a	1,700	0
Christ C Irvine	6,285	7,065	0
Christian Heritage C	5,280	5,800	0
Citrus C	110	110	2,700
City C San Francisco	100	100	3,030
Claremont McKenna C	11,870	12,900	0
Coast CC Dist			
Golden West C	115	115	2,850
Orange Coast C	151	132	2,280
Cogswell Polytech C*	6,280	6,280	0
C for Developmental			
Studies	4,950	5,360	0
C of the Canyons	100	100	2,850
C of Notre Dame	7,700	8,400	0
C of the Redwoods	100	100	2,940
C of the Sequoias	100	100	2,820
C of the Siskiyous	115	115	2,820
Columbia C Hollywood	3,975	4,200	0
Compton CC	100	100	2,720
Crafton Hills C	115	115	2,820
Cypress C	115	115	3,090
El Camino C	100	100	3,060
Feather River C	106	130	2,940
Foothill-De Anza CC Dist			
De Anza C	139	139	2,970
Foothill C	139	151	2,970
Fresno City C	115	115	2,820
Fresno Pacific C	6,230	6,810	0
Glendale CC	125	125	2,820
Grossmont CC	115	115	2,820
Harvey Mudd C	12,100	13,040	0
Heald Business C			
San Francisco	4,975	4,975	0
Walnut	4,975	4,975	0
Hebrew Union C-Jewish			
Inst of Religion	5,500	5,500	0
Holy Names C	7,370	7,810	0
Humphreys C*	3,254	3,482	0
Imperial Valley C	100	100	2,820
ITT Tech Inst Sacramento	n/a	4,982	0
John F Kennedy U	4,068	5,418	0

CALIFORNIA—Continued

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Kelsey-Jenny Business C	n/a	$4,975	$0
LIFE Bible C	$3,050	3,050	0
Lincoln U	n/a	485	0
Loma Linda U	7,350	8,550	0
Long Beach City C	100	100	2,940
Los Angeles CC Dist			
East Los Angeles C	100	100	3,060
Los Angeles City C	100	100	2,910
Los Angeles Harbor C	100	100	2,910
Los Angeles Mission C	100	100	2,910
Los Angeles Pierce C	100	100	3,060
LA Trade-Tech C	100	150	3,060
Los Angeles Valley C	100	100	3,060
Los Rios CC Dist			
Cosumnes River C	100	100	2,856
Sacramento City C	100	100	2,910
Loyola Marymount U	8,615	9,431	0
Marymount C	7,805	8,835	0
Master's C	4,950	6,050	0
Mendocino C	100	104	2,820
Menlo C	10,550	10,972	0
Merced C	116	116	2,820
Mills C	11,290	12,205	0
Mira Costa C*	104	126	2,820
Modesto JC	100	100	2,820
Monterey Inst of			
International Studies	8,700	9,545	0
Monterey Peninsula C	135	135	2,955
Mount Saint Mary's C	8,120	9,010	0
Mount San Antonio C	115	165	2,940
Mount San Jacinto C	100	100	2,700
Napa Valley C	100	100	2,820
National U	4,905	5,355	0
New C of California	4,640	5,025	0
Northrop U	9,420	9,813	0
Occidental C	12,078	13,026	0
Ohlone C*	100	100	2,790
Otis Art Inst of			
Parsons Sch of Design	8,520	9,160	0
Pacific Christian C	4,460	4,460	0
Pacific Coast Baptist C	1,560	1,560	0
Pacific Oaks C	6,950	6,950	0
Pacific Union C	7,320	7,980	0
Palomar C	115	115	2,730
Patten C	3,070	3,270	0
Pepperdine U	12,115	13,210	0
Pitzer C	12,986	14,282	0
Point Loma Nazarene C	5,925	6,405	0
Pomona C	12,000	13,130	0
Porterville C	120	120	2,820
Queen of the Holy			
Rosary C	2,500	2,500	0
Rancho Santiago CC	115	115	2,335
Riverside CC*	100	100	2,820
Saddleback C	115	115	1,128
Saint Mary's C	8,566	9,392	0
Samuel Merritt C			
of Nursing	8,565	9,330	0
San Diego CC Dist			
San Diego Mesa C	100	100	2,890
San Diego Miramar C	100	100	2,790
San Francisco C of			
Mortuary Science	6,390	6,390	0
SF Conservatory of Music	7,350	7,850	0
San Joaquin Delta C	100	100	2,730
San Jose Bible C	4,185	4,335	0
San Jose Evergreen CC			
Dist			
Evergreen Valley C	115	115	3,000
San Jose City C	115	115	3,000
San Mateo Co CC Dist			
Cañada C	115	115	3,000
C of San Mateo	115	120	3,000
Skyline C	115	115	3,000
Santa Barbara City C	115	115	2,920
Santa Clara U	8,784	9,618	0
Santa Monica C	115	115	3,175
Santa Rosa JC	108	115	2,539
Scripps C	11,800	12,890	0
Sierra C*	115	115	2,790
Simpson C	4,904	5,304	0
Southern California C	5,512	6,265	0
Southwestern C*	114	130	2,610
Stanford U	12,564	13,569	0
Taft C	100	100	2,820
Thomas Aquinas C	8,580	9,500	0
U S International U	7,980	8,610	0
U of California			
Berkeley*	1,531	1,672	5,799
Davis*	1,532	1,607	5,799
Irvine*	1,586	1,828	5,799
Los Angeles*	1,491	1,634	5,799
Riverside*	1,515	1,646	5,799
San Diego*	1,614	1,767	5,799
San Francisco*	1,701	1,857	5,799
Santa Barbara*	1,531	1,668	5,799
Santa Cruz*	1,682	1,834	5,799
U of Judaism	5,780	6,550	0
U of La Verne	8,390	9,145	0
U of the Pacific	11,968	12,772	0
U of Redlands	11,110	12,090	0
U of San Diego	8,550	9,340	0
U of San Francisco	8,530	9,442	0
U of Southern Cal	12,466	13,446	0
Ventura Co CC Dist			
Moorpark C	115	115	2,820
Oxnard C	115	115	2,850
Victor Valley C	100	100	2,820
West Coast Christian C	2,865	3,200	0
West Coast U	6,240	6,750	0
West Hills C	100	100	2,820
W Valley-Mission CC Dist			
Mission C	115	122	2,940
West Valley C	139	134	2,940
Westmont C	8,670	9,780	0
Whittier C	10,786	11,672	0
Woodbury U	7,626	8,505	0
World C West	7,100	7,750	0
Yuba C	115	115	2,790

COLORADO

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Adams St C	1,292	1,362	2,158
Arapahoe CC	962	1,010	2,882
Bel-Rea Inst of			
Animal Tech	3,475	3,750	0
Colorado Christian C	4,680	4,030	0
Colorado C	10,240	11,470	0
Colorado Mountain C			
Alpine	642	700	3,600
Spring Valley	700	700	3,600
Timberline	670	670	3,600
Colo Northwestern CC	190	190	2,238
Colorado Sch of Mines*	3,476	3,672	5,916
Colorado St U Sys			
Fort Lewis C	1,274	1,288	3,154
U Southern Colorado	1,412	1,537	3,738

COLORADO—Continued

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Colorado Tech C	$4,751	$5,055	$0
CC of Aurora	818	866	2,592
CC of Denver	900	984	2,592
Denver Tech C	5,500	5,750	0
Electronic Tech Inst	3,995	3,995	0
Front Range CC	897	945	2,592
ITT Tech Inst Aurora	5,800	6,448	0
Lamar CC	1,086	1,109	1,724
Morgan CC	852	924	2,592
Naropa Inst	7,595	7,605	0
Northeastern JC*	514	514	1,218
Otero JC	966	1,014	1,724
Pikes Peak CC	906	957	2,592
Pueblo CC	895	943	2,592
Red Rocks CC	898	946	2,592
Regis C	8,300	9,050	0
Rocky Mountain C			
of Art and Design*	3,970	4,000	0
Trinidad St JC	1,078	1,126	1,724
U of Colorado			
Boulder	1,924	2,097	6,512
Colorado Springs	1,506	1,792	3,574
Denver	1,304	1,458	4,714
Health Sciences Ctr	3,051	3,308	6,616
U of Denver	9,858	10,944	0

CONNECTICUT

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Albertus Magnus C	8,070	8,815	0
Asnuntuck CC	790	880	1,674
Briarwood C	5,990	6,865	0
Bridgeport Engr Inst	4,800	5,900	0
Connecticut C	12,800	14,050	0
Connecticut St U Sys			
Central Conn St U	1,549	1,625	2,060
Eastern Conn St U	1,550	1,622	2,060
Southern Conn St U	1,388	1,454	2,060
Western Conn St U	1,551	1,633	2,060
Fairfield U	9,325	10,570	0
Greater Hartford CC	790	880	1,674
Greater New Haven			
St Tech C	1,077	1,226	2,596
Hartford C for Women	7,139	7,878	0
Hartford St Tech C	1,077	1,226	2,596
Housatonic CC	790	880	1,674
Manchester CC	790	880	1,674
Mattatuck CC	790	880	1,674
Middlesex CC	790	880	1,674
Mitchell C	8,300	8,930	0
Mohegan CC	790	880	1,674
Northwestern Conn CC	790	880	1,674
Norwalk CC	790	880	1,674
Norwalk St Tech C	1,087	1,226	2,596
Paier C of Art	7,090	7,620	0
Post C	6,600	7,400	0
Quinebaug Valley CC	790	880	1,674
Quinnipiac C	8,230	8,910	0
Saint Alphonsus C	3,550	3,550	0
Saint Joseph C	7,900	8,900	0
South Central CC	790	880	1,674
Thames Valley St Tech C	1,077	1,226	2,596
Trinity C	13,200	14,300	0
Tunxis CC	790	880	1,674
U of Bridgeport	9,444	10,200	0
U of Connecticut	2,293	2,631	4,180
U of Hartford	9,620	10,992	0
U of New Haven	7,720	8,454	0
Waterbury St Tech C	1,077	1,226	2,596
Wesleyan U	13,325	14,610	0
Yale U	12,960	14,000	0

DELAWARE

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Brandywine C Widener U	5,880	6,350	0
Delaware St C*	1,100	1,100	1,450
Delaware Tech and CC			
Southern	771	898	1,215
Stanton-Wilmington	771	898	1,215
Terry	771	898	1,215

DELAWARE—Continued

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Goldey Beacom C	$4,170	$4,500	$0
U of Delaware	2,790	2,990	4,210
Wesley C	6,150	6,425	0
Wilmington C	4,190	4,440	0

DISTRICT OF COLUMBIA

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
American U	10,480	11,536	0
Catholic U of America	9,550	10,370	0
Corcoran Sch of Art	6,840	7,470	0
Gallaudet U	3,054	3,304	0
George Washington U	9,771	11,775	0
Georgetown U	11,990	13,366	0
Howard U	5,005	5,328	0
Mount Vernon C	9,582	10,732	0
Oblate C	3,350	3,575	0
Southeastern U	4,510	6,625	0
Trinity C	8,698	9,425	0
U of the District			
of Columbia	664	664	2,400

FLORIDA

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Barry U	7,280	7,990	0
Bethune Cookman C	3,875	4,134	0
Broward CC	688	690	750
Central Florida CC	683	744	773
Chipola JC	668	668	672
Clearwater Christian C	3,790	4,090	0
C of Boca Raton	8,700	10,200	0
Eckerd C	9,640	10,895	0
Edison CC	733	733	765
Edward Waters C	3,116	3,116	0
Embry-Riddle			
Aeronautical U	4,690	5,290	0
Flagler C	3,880	4,090	0
Florida Baptist Theol C	1,254	1,254	0
Florida Bible C	2,680	2,686	0
Florida Christian C	2,635	3,000	0
Florida C	3,150	3,300	0
Florida Inst of Tech	6,201	6,786	0
Florida Keys CC	660	675	660
Florida Memorial C	3,900	4,150	0
Florida Southern C	5,100	5,600	0
Gulf Coast CC	605	610	595
Hobe Sound Bible C	2,685	2,875	0
International Fine Arts C	7,260	7,440	0
Jacksonville U	6,620	7,280	0
Lake City CC*	660	660	660
Lake-Sumter CC	698	698	698
Manatee CC	645	645	780
Miami Christian C	4,480	4,700	0
Miami-Dade CC	738	780	1,110
North Florida JC	633	633	622
Nova U	5,250	5,700	0
Okaloosa-Walton CC	600	690	640
Orlando C	3,400	3,150	0
Palm Beach Atlantic C	4,960	4,960	0
Palm Beach CC*	735	735	668
Pensacola JC*	728	750	706
Ringling Sch of			
Art and Design	6,600	7,400	0
Rollins C	10,881	11,950	0
Saint John			
Vianney C Sem	5,500	5,600	0
Saint Johns River CC	630	630	630
Saint Leo C	6,450	7,047	0
Saint Petersburg JC	735	736	713
Saint Thomas U	6,600	7,100	0
Santa Fe CC	660	660	660
South Florida CC	720	834	734
Stetson U	7,675	8,440	0
St U Sys of Florida			
Florida A&M U*	1,124	1,268	2,760
Florida Atlantic U*	1,206	1,279	2,760
Florida International U*	1,135	1,215	2,760
Florida St U*	1,130	1,228	2,486
U of Central Florida*	1,155	1,255	2,483

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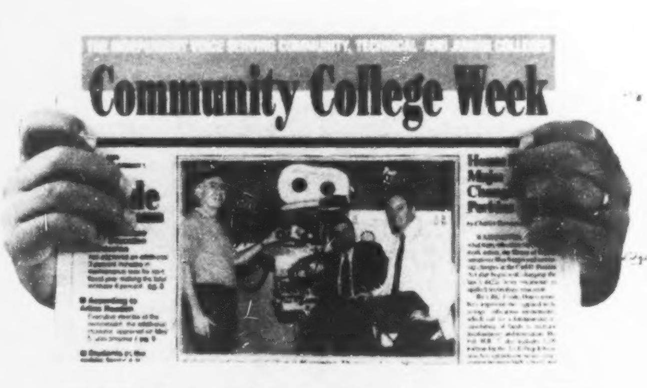
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1989-90 TUITION AND FEES AT MORE THAN 2,400 COLLEGES AND UNIVERSITIES

FLORIDA—Continued

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
St U Sys of Florida—Continued			
U of Florida*	$1,144	$1,230	$2,760
U of North Florida*	1,128	1,130	2,486
U of South Florida*	1,179	1,190	2,600
New C*	1,311	1,419	3,311
U of West Florida*	1,116	1,194	2,760
Tallahassee CC	600	630	630
Tampa C	3,300	4,200	0
U of Miami	10,801	11,880	0
U of Tampa	8,450	9,260	0
Warner Southern C	4,670	4,890	0
Webber C	4,830	5,290	0

GEORGIA

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Abraham Baldwin Ag C	1,062	1,119	1,710
Agnes Scott C	9,055	9,780	0
Albany St C	1,476	1,521	2,382
American C for the Applied Arts	5,550	6,450	0
Andrew C	2,850	3,287	0
Armstrong St C	1,311	1,363	2,382
Art Inst of Atlanta	6,155	6,630	0
Atlanta Christian C	2,816	3,208	0
Atlanta C of Art	6,400	6,400	0
Atlanta Metropolitan C	912	933	1,710
Augusta C	1,296	1,362	2,382
Bainbridge C	902	948	1,710
Berry C	5,400	5,880	0
Brenau Women's C	5,904	6,018	0
Brewton-Parker C	2,775	3,030	0
Brunswick C	1,002	1,038	1,710
Clark C	4,968	5,624	0
Clayton St C	1,191	1,266	2,382
Columbus C	1,317	1,365	2,382
Covenant C	5,890	6,750	0
Dalton C	897	933	1,710
Darton C	912	948	1,710
DeKalb C	915	960	1,440
East Georgia C	912	948	1,710
Emmanuel C	2,925	3,210	0
Emmanuel C Sch of Christian Ministries	2,925	3,210	0
Emory U	11,210	12,410	0
Oxford C	8,600	9,360	0
Floyd C	912	948	1,710
Fort Valley St C	1,467	1,530	2,382
Gainesville C	930	966	1,710
Georgia C	1,362	1,416	2,382
Georgia Inst of Tech	1,887	1,971	3,849
Georgia Military C	3,180	3,480	0
Georgia Southern C	1,446	1,506	2,382
Georgia Southwestern C	1,377	1,446	2,382
Georgia St U	1,584	1,659	3,825
Gordon C	957	993	1,710
Kennesaw St C	1,248	1,293	2,382
La Grange C	3,920	4,689	0
Macon C	906	942	1,710
Medical C of Georgia	1,711	1,802	3,168
Mercer U			
Atlanta	5,445	5,895	0
Macon	7,002	7,515	0
Middle Georgia C	1,047	1,083	1,710
Morehouse C	4,900	5,550	0
Morris Brown C*	4,840	5,420	0
North Georgia C	1,386	1,431	2,382
Oglethorpe U	7,500	8,350	0
Paine C	4,250	4,500	0
Phillips C Columbus	3,182	3,182	0
Piedmont C	2,565	2,736	0
Savannah C of Art and Design	5,700	6,150	0
Savannah St C	1,461	1,521	2,382
Shorter C	4,700	5,000	0
South C	3,375	3,925	0
South Georgia C	960	987	1,710
Southern C of Tech	1,323	1,383	2,382
Spelman C	5,072	5,792	0
Thomas C	2,346	2,584	0
Toccoa Falls C	4,005	4,310	0
Truett McConnell C	3,213	3,366	0
U of Georgia	1,839	1,917	3,168
Valdosta St C	1,422	1,509	2,382
Waycross C	912	948	1,710
Wesleyan C	6,360	8,255	0
West Georgia C	1,455	1,524	2,382
Young Harris C*	3,225	3,420	0

HAWAII

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Brigham Young U Hawaii	1,350	1,450	0
Chaminade U of Honolulu	5,250	5,540	750
Hawaii Loa C	7,100	7,300	0
Hawaii Pacific C	3,950	4,500	0
U of Hawaii			
Hilo	400	450	2,060
Manoa	1,227	1,327	2,450
Honolulu CC	360	410	2,060
Kapiolani CC	365	415	2,060
Kauai CC	360	410	2,060
Leeward CC	360	410	2,060
Maui CC	368	410	2,060
West Oahu C	790	840	1,650
Windward CC	370	420	2,060

IDAHO

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Boise Bible C	2,500	2,806	0
Boise St U	1,180	1,224	1,900
C of Idaho	8,032	8,200	0
Idaho St U	1,000	1,086	1,900
Lewis-Clark St C	1,040	1,040	1,900
Northwest Nazarene C	5,091	5,823	0
Ricks C	1,285	1,345	0
U of Idaho	1,048	1,098	2,200

ILLINOIS

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
American Conservatory of Music	6,200	6,200	0
American Islamic C	2,250	2,980	0
Augustana C	7,848	8,808	0
Aurora U	6,850	7,570	0
Barat C	6,391	7,099	0
Belleville Area C	850	910	2,670
Black Hawk C	1,095	1,215	3,210
Black Hawk C East	1,095	1,215	3,210
Blackburn C	6,520	7,110	0
Bd of Gov of St C's & U's			
Chicago St U	1,472	1,732	3,141
Eastern Illinois U	1,814	2,100	3,144
Governors St U	1,406	1,646	3,192
Northeastern Illinois U	1,608	1,878	3,141
Western Illinois U	1,791	2,049	3,141
Bradley U	7,534	8,024	0
City C's of Chicago			
Chicago	820	820	2,579
Harold Washington	820	820	2,579
Harry S Truman	820	820	2,579
Kennedy-King	820	820	2,579

ILLINOIS—Continued

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
City C's of Chicago—Continued			
Malcolm X	$820	$820	$2,579
Olive-Harvey	820	820	2,579
Richard J Daley	820	820	2,579
Wright	820	820	2,579
C of Du Page	810	855	3,060
C of Lake County	873	963	3,959
C of Saint Francis	6,110	6,700	0
Columbia C	4,680	5,420	0
Concordia C	5,408	5,984	0
De Paul U	6,894	8,094	0
East-West U	4,873	4,873	0
Elgin CC	930	930	2,817
Elmhurst C	6,526	7,166	0
Eureka C	6,950	7,775	0
Gem City C	3,000	3,000	0
Greenville C	6,525	7,163	0
Hebrew Theol C	2,865	4,045	0
Highland CC	600	660	2,961
Illinois Benedictine C	6,900	7,720	0
Illinois Central C*	840	938	2,880
Illinois C	5,000	5,500	0
Illinois Eastern CC			
Frontier*	510	640	3,348
Lincoln Trail*	510	640	3,348
Olney Central*	450	640	3,348
Wabash Valley*	510	640	3,348
Illinois Inst of Tech	9,630	10,500	0
Illinois St U	1,937	2,238	3,428
Illinois Tech C	4,275	4,580	0
Illinois Valley CC	548	548	2,254
Illinois Wesleyan U	8,505	9,175	0
Int'l Acad Merchandising and Design	5,799	6,844	0
ITT Tech Inst	n/a	5,164	0
John A Logan C	552	642	2,511
Judson C	6,600	7,040	0
Kankakee CC	825	825	4,095
Kendall C	6,051	6,066	0
Kishwaukee C	880	910	3,059
Knox C	9,822	10,746	0
Lake Forest C	11,730	12,780	0
Lewis and Clark CC	708	798	4,343
Lewis U	6,060	6,590	0
Lincoln Christian C	3,094	3,366	0
Lincoln C	6,105	6,605	0
Lincoln Land CC	853	913	3,864
Loyola U of Chicago	7,110	7,830	0
MacCormac JC	5,175	5,400	0
MacMurray C	6,750	7,200	0
Mallinckrodt C of the North Shore	3,780	4,500	0
McHenry Co C	906	906	3,452
McKendree C	5,141	5,441	0
Metro Business C	5,500	7,095	0
Millikin U	7,771	8,421	0
Monmouth C	9,795	10,635	0
Montay C	2,960	3,960	0
Moody Bible Inst	500	525	0
Moraine Valley CC	1,080	1,172	3,178
Morrison Inst of Tech	3,100	3,300	0
Morton C	720	930	5,024
Mundelein C	7,020	7,629	0
National C of Chiropractic	6,534	6,624	0
National C of Education	5,850	6,525	0
North Central C	7,680	8,361	0
North Park C	7,500	9,100	0
Northern Illinois U	2,072	2,379	3,428
Northwestern U	12,270	12,996	0
Oakton CC	540	538	3,000
Olivet Nazarene U	5,168	5,548	0
Parks C of Saint Louis U	4,900	5,450	0
Prairie St C	1,140	1,230	3,210
Principia C	9,462	9,900	0
Quincy C	6,390	7,000	0
Ray C of Design	6,400	6,650	0
Richland CC	799	799	3,566
Robert Morris C	5,970	6,270	0
Rock Valley C	870	870	3,910
Rockford C	7,510	8,070	0
Roosevelt U	6,252	6,822	0
Rosary C	6,890	7,740	0
Rush U	6,710	7,268	0
Saint Augustine C	3,870	4,040	0
Saint Xavier C	6,730	7,450	0
Sangamon St U	1,546	1,824	3,126
Sauk Valley CC	870	870	2,310
Sch of the Art Inst of Chicago	8,400	9,300	0
S Suburban C of Cook Co	1,106	1,106	3,100
Southern Illinois U			
Carbondale	1,903	2,145	3,120
Edwardsville	1,595	1,802	2,922
Spertus C of Judaica	3,505	4,035	0
Spoon River C	930	992	4,955
Springfield C	3,840	4,292	0
Trinity Christian C	6,080	6,540	0
Triton C	1,010	1,010	3,908
U of Chicago	13,285	14,025	0
U of Illinois			
Chicago	2,697	2,730	3,540
Urbana-Champaign	2,698	2,798	3,540
Waubonsee CC*	838	926	4,548
W Suburban C of Nursing	5,408	5,984	0
Wheaton C	7,728	8,350	0
William Rainey Harper C*	840	930	3,407

INDIANA

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Ancilla C	1,639	1,864	0
Anderson U	6,100	6,680	0
Ball St U	1,875	1,992	2,598
Bethel C	5,720	6,250	0
Butler U	7,922	8,825	0
Calumet C of St Joseph	3,106	3,285	0
De Pauw U	9,550	10,550	0
Earlham C	10,587	11,610	0
Franklin C of Indiana	7,310	7,710	0
Goshen C	6,095	6,610	0
Grace C	5,244	6,110	0
Hanover C	5,330	5,750	0
Holy Cross JC	2,794	3,110	0
Huntington C	6,100	6,900	0
Indiana Inst of Tech	5,820	6,120	0
Indiana U			
Bloomington	2,038	2,183	4,076
East	1,626	1,724	2,490
Kokomo	1,606	1,724	2,490
Northwest	1,626	1,724	2,490
Purdue U Fort Wayne	1,638	1,866	2,489
Purdue U Indianapolis	1,854	1,987	3,806
South Bend	1,626	1,724	2,490
Southeast	1,636	1,724	2,490

INDIANA—Continued

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Indiana Voc Tech C			
Central Indiana*	$1,380	$1,445	$1,181
Columbus*	1,380	1,445	1,181
Eastcentral*	1,380	1,445	1,181
Kokomo*	1,380	1,445	1,181
Lafayette*	1,380	1,445	1,181
Northcentral*	1,380	1,445	1,181
Northeast*	1,380	1,445	1,181
Northwest*	1,380	1,445	1,181
Southcentral*	1,380	1,445	1,181
Southeast*	1,380	1,445	1,181
Southwest*	1,380	1,445	1,181
Wabash Valley*	1,380	1,445	1,181
Whitewater*	1,380	1,445	1,181
Indiana Wesleyan U	6,010	6,420	0
Interstate Tech Inst	5,500	10,215	0
Manchester C	6,700	7,260	0
Marian C	5,505	5,991	0
Martin Center C	2,420	3,020	0
Oakland City C	5,645	6,116	0
Purdue U			
Main campus	1,916	2,032	4,232
Calumet	1,645	1,677	2,546
North Central	1,583	1,677	2,546
Rose-Hulman Inst of Tech	8,700	9,360	0
Saint Francis C	5,138	5,570	0
Saint Joseph's C	7,260	7,950	0
Saint Mary of the Woods C	6,970	7,635	0
Saint Mary's C	8,479	9,322	0
Saint Meinrad C	3,466	4,013	0
Summit Christian C	5,120	5,420	0
Taylor U	7,694	8,183	0
Tri-State U	5,985	6,939	0
U of Evansville	7,500	8,400	0
U of Indianapolis	6,920	7,590	0
U of Notre Dame	10,472	11,500	0
U of Southern Indiana*	1,531	1,651	2,387
Valparaiso U	8,018	8,238	0
Vincennes U	1,422	1,452	2,600
Wabash C	8,200	8,825	0

IOWA

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
American Inst of Business	3,675	3,975	0
Briar Cliff C	5,820	6,390	0
Buena Vista C	8,139	8,953	0
Central C of Iowa	7,410	8,021	0
Clarke C	6,730	7,550	0
Coe C	8,010	8,750	0
Cornell C	9,070	9,980	0
Des Moines Area CC	1,214	1,262	1,120
Divine Word C	4,335	4,635	0
Dordt C	5,990	6,400	0
Drake U	8,560	9,500	0
Eastern Iowa CC Dist			
Clinton CC	1,335	1,335	600
Muscatine CC	1,335	1,335	600
Scott CC	1,328	1,328	600
Ellsworth CC*	1,210	1,350	1,200
Faith Baptist Bible C	3,514	3,656	0
Graceland C	6,245	6,770	0
Grinnell C	10,870	11,708	0
Hamilton Tech C	3,945	3,983	0
Hawkeye Inst of Tech*	1,005	1,122	1,050
Indian Hills CC	1,028	1,208	540
Iowa Central CC	1,19[illegible]	1,360	600
Iowa St U*	1,706	1,826	4,156
Iowa Wesleyan C	6,100	6,500	0
Iowa Western CC	1,470	1,470	675
Kirkwood CC	1,200	1,200	1,050
Loras C	6,840	7,370	0
Luther C	7,950	9,025	0
Maharishi International U	6,588	6,588	0
Marycrest C	6,790	7,290	0
Morningside C	6,786	7,566	0
Mount Mercy C	6,035	6,490	0
Mount Saint Clare C	5,640	6,150	0
North Iowa Area CC	1,160	1,270	570
Northeast Iowa Tech Inst	1,050	1,158	1,008
Northwest Iowa Tech C	1,098	1,182	488
Northwestern C	6,400	6,900	0
Simpson C	7,500	8,190	0
Southeastern CC			
North*	1,106	1,136	532
South*	1,106	1,136	532
St Ambrose U	6,930	7,410	0
U of Dubuque	6,435	7,125	0
U of Iowa*	1,706	1,826	4,156
U of Northern Iowa	1,690	1,810	2,840
U of Osteopathic Med & Health Sciences	n/a	4,045	0
Upper Iowa U	6,535	7,540	0
Vennard C	3,869	3,869	0
Waldorf C	5,080	5,630	0
Wartburg C	7,510	8,130	0
Westmar C	6,420	7,492	0
William Penn C	7,220	7,730	0

KANSAS

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Allen Co CC	570	600	1,200
Baker U	5,560	5,995	0
Barton Co CC*	660	660	1,440
Bethany C	5,723	6,067	0
Bethel C	5,526	6,182	0
Brown Mackie C	4,485	4,485	0
Butler Co CC*	855	855	795
Central C	4,600	5,000	0
Cloud Co CC*	750	810	1,710
Coffeyville CC*	600	600	1,504
Colby CC*	750	800	1,184
Donnelly C	1,980	2,290	0
Emporia St U	1,237	1,291	1,894
Fort Hays St U*	1,378	1,396	1,898
Fort Scott CC*	600	660	1,920
Friends Bible C	4,350	4,975	0
Friends U	6,000	6,432	0
Hesston C	4,700	5,050	0
Highland CC*	780	780	1,170
Hutchinson CC*	660	660	1,440
Kansas City Kansas CC*	660	660	1,200
Kansas C of Tech	892	940	1,800
Kansas Newman C	5,080	5,300	0
Kansas St U*	1,363	1,462	2,798
Kansas Wesleyan	5,320	5,720	0
Labette CC*	510	518	1,980
Manhattan Christian C	2,420	2,700	0
McPherson C	5,400	5,940	0
Mid-America Nazarene C	4,344	4,656	0
Ottawa U	5,150	5,800	0
Pittsburg St U	1,182	1,264	1,894
Pratt CC*	750	800	1,216
Saint Mary C	5,070	5,380	0

KANSAS—Continued

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Saint Mary of the Plains C	$5,050	$5,310	$0
Seward Co CC*	600	672	1,248
Southwestern C	3,752	4,152	0
Sterling C	5,050	5,500	0
Tabor C	4,900	5,590	0
U of Kansas			
Main campus*	1,380	1,456	2,798
Medical Ctr*	1,156	1,212	2,798
Washburn U of Topeka	2,128	2,278	840
Wichita St U*	1,422	1,510	2,798

KENTUCKY

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Alice Lloyd C	140	240	0
Asbury C	5,943	6,308	0
Bellarmine C	5,100	5,500	0
Berea C	148	170	0
Brescia C	4,400	4,600	0
Campbellsville C	3,990	4,190	0
Centre C	8,050	8,665	0
Cumberland C	3,880	3,980	0
Eastern Kentucky U	1,140	1,180	2,120
Georgetown C	4,900	5,266	100
Kentucky St U	1,160	1,180	2,120
Kentucky Wesleyan C	5,150	5,600	0
Lees C	3,000	3,150	0
Lindsey Wilson C	4,160	4,496	0
Louisville Tech Inst	5,070	5,490	0
Mid-Continent Baptist Bible C	1,240	1,550	0
Morehead St U	1,170	1,190	2,120
Murray St U	1,120	1,170	2,120
Northern Kentucky U	1,120	1,170	2,120
Owensboro Jr. of Business	3,000	3,000	0
Pikeville C	3,700	3,800	0
RETS Electronic Inst	5,115	5,610	0
Saint Catharine C	3,200	3,360	0
Spalding U	4,872	5,172	0
Sue Bennett C	3,070	3,250	0
Thomas More C	6,450	6,950	0
Transylvania U	7,750	8,302	0
Union C	4,670	4,970	0
U of Kentucky			
Main campus	1,540	1,560	2,760
Ashland CC	580	600	1,200
Hazard CC	580	600	1,200
Henderson CC	580	600	1,200
Hopkinsville CC	580	600	1,200
Jefferson CC	580	600	1,200
Lexington CC	1,412	1,560	2,760
Madisonville CC	580	600	1,200
Maysville CC	580	600	1,200
Paducah CC	580	600	1,200
Prestonburg CC	580	600	1,200
Somerset CC	560	600	1,200
Southeast CC*	580	600	1,200
U of Louisville	1,460	1,488	2,760
Western Kentucky U	1,130	1,160	2,120

LOUISIANA

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Bossier Parish CC	500	505	505
Centenary C of Louisiana	5,540	6,140	0
Dillard U	4,800	5,100	0
Louisiana C	3,250	3,250	0
Louisiana St U			
Alexandria*	924	924	1,472
Eunice*	890	890	1,500
Medical Ctr*	1,802	2,209	3,000
Louisiana Tech U	1,617	1,822	1,155
Loyola U	6,819	7,850	0
Nicholls St U*	1,391	1,391	1,440
Northwestern St U*	1,479	1,480	1,350
Our Lady of Holy Cross C	4,290	4,600	0
Saint Joseph Sem C	3,850	3,850	0
Southeastern La U*	1,484	1,390	1,440
Southern U Shreveport*	750	800	1,030
Tulane U	12,730	14,230	0
Xavier U of Louisiana	4,705	5,105	0

MAINE

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Andover C	3,375	3,675	0
Bowdoin C	12,565	14,060	0
Casco Bay C	4,025	4,325	0
Central Maine Medical Ctr Sch of Nursing	2,074	2,074	0
Central Me Voc Tech Inst	1,005	1,185	1,000
Colby C	12,620	14,120	0
C of the Atlantic	8,500	9,700	0
E Me Voc Tech Inst*	1,000	1,100	1,000
Husson C	6,475	6,800	0
Maine Maritime Acad	3,000	3,000	2,130
Portland Sch of Art	6,950	7,620	0
Saint Joseph's C	6,225	7,025	0
S Me Voc Tech Inst*	1,015	1,030	900
Thomas C	6,500	6,890	0
Unity C	5,060	5,297	1,179
U of Maine Sys			
Augusta	1,605	1,755	2,430
Farmington	1,630	1,860	2,430
Fort Kent	1,620	1,770	2,430
Machias	1,645	1,795	2,430
Presque Isle	1,630	1,780	2,430
U of Southern Maine	1,741	1,891	3,330
U of New England	7,575	8,370	0
Westbrook C	7,850	8,500	0

MARYLAND

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Anne Arundel CC*	980	1,180	2,220
Baltimore Hebrew U*	2,130	2,280	0
Baltimore International Culinary C*	n/a	12,675	0
Capitol C	5,670	6,210	0
Cecil CC	930	990	1,860
Charles Co CC*	1,156	1,246	2,220
Chesapeake C	984	798	2,544
C of Notre Dame of Md	7,575	8,300	0
Columbia Union C	6,960	7,830	0
CC of Baltimore	1,040	1,132	2,264
Dundalk CC	962	1,082	2,292
Eastern Christian C	2,020	2,110	0
Essex CC	980	1,080	2,292
Goucher C	10,165	11,000	0
Hagerstown Business C	3,120	3,360	0
Harford CC	1,060	1,150	2,310
Hood C	9,800	10,780	0
Howard CC	1,269	1,365	3,043
Johns Hopkins U	12,340	14,360	0
Loyola C in Md	8,005	9,115	0
Maryland Inst C of Art	8,850	9,850	0
Montgomery C			
Germantown	1,320	1,386	1,980
Rockville	1,320	1,386	1,980
Takoma Park	1,320	1,386	1,980
Morgan St U*	1,778	1,922	3,358

MARYLAND—Continued

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Mount Saint Mary's C	$7,250	$8,375	$0
Prince George's CC	1,290	1,547	4,320
Saint John's C	11,000	11,880	0
Saint Mary's C of Md	2,400	2,500	1,600
Sojourner-Douglass C	4,510	4,525	0
U of Maryland Sys			
Baltimore	1,983	2,069	3,656
Baltimore Co	2,016	2,204	3,656
C Park	1,906	2,097	3,657
Eastern Shore	1,880	1,972	3,477
U C	2,855	3,390	0
Bowie St U	1,869	1,945	1,541
Coppin St C	1,896	2,000	1,542
Frostburg St U	1,805	1,862	1,527
Salisbury St U	2,110	2,188	1,542
Towson St U	1,902	2,014	1,540
U of Baltimore	1,830	1,906	1,470
Villa Julie C	4,560	4,990	0
Washington C	9,600	10,500	0
Western Maryland C	9,450	10,584	0
Wor-Wic Tech CC*	882	942	3,420

MASSACHUSETTS

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
American International C	6,510	7,191	0
Amherst C	13,105	14,035	0
Anna Maria C	7,125	8,040	0
Aquinas JC Milton	5,650	6,300	0
Aquinas JC Newton	6,200	6,400	0
Assumption C	7,750	8,675	0
Atlantic Union C	7,605	8,275	0
Babson C	11,392	12,570	0
Bay Path C	6,300	7,000	0
Bay State JC of Business	5,525	5,925	0
Becker JC Leicester	5,100	5,700	0
Becker JC Worcester	5,100	5,700	0
Bentley C	9,505	10,610	0
Berklee C of Music	6,530	7,440	0
Boston Architectural Ctr	2,110	2,440	0
Boston C	11,076	12,066	0
Boston Conservatory	7,650	8,210	0
Boston U	12,975	14,095	0
Bradford C	9,100	10,010	0
Brandeis U	13,066	14,150	0
Clark U	12,170	13,170	0
C of the Holy Cross	11,740	12,870	0
Curry C	9,350	10,550	0
Eastern Nazarene C	5,785	6,387	0
Elms C	7,750	8,360	0
Emerson C	10,275	11,441	0
Emmanuel C	8,140	8,910	0
Endicott C	7,650	8,340	0
Fisher C	7,200	7,830	0
Forsyth Sch of Dental Hygienists	8,682	9,295	0
Franklin Inst of Boston	6,390	6,820	0
Gordon C	8,878	9,753	0
Hampshire C	13,845	14,960	0
Harvard-Radcliffe C	13,665	14,560	0
Hellenic C*	4,560	4,842	0
Lasell JC	7,645	8,200	0
Lesley C	9,030	9,950	0
Marian Court JC	4,995	5,620	0
Mass Bd of Regents Sys			
Southeastern Mass U	1,510	1,665	3,306
U of Lowell	1,770	1,910	3,306
U of Mass Amherst	2,404	2,580	3,906
U of Mass Boston	1,786	1,995	3,906
Bridgewater St C	1,404	1,780	2,838
Fitchburg St C	1,324	1,422	2,838
Mass C of Art	1,594	1,628	2,904
Framingham St C	1,464	1,701	2,838
Mass Maritime Acad	1,544	1,728	2,904
North Adams St C	1,513	1,666	2,838
Salem St C	1,408	1,485	2,838
Westfield St C	1,413	1,493	2,838
Worcester St C	1,296	1,404	2,838
Berkshire CC	1,038	1,116	2,184
Bristol CC	958	1,263	2,184
Bunker Hill CC	912	1,252	2,184
Cape Cod CC	1,004	1,098	2,184
Greenfield CC	1,048	1,373	2,184
Holyoke CC	1,218	1,268	2,184
Massachusetts Bay CC	1,068	1,188	2,184
Massasoit CC	1,026	1,088	2,184
Middlesex CC	974	1,117	2,184
Mount Wachusett CC	1,080	1,228	2,184
North Shore CC	950	1,140	2,184
Northern Essex CC	1,098	1,290	2,184
Quinsigamond CC	1,030	1,295	2,184
Roxbury CC	949	1,079	2,184
Springfield Tech CC	982	1,057	2,184
Mass C of Pharmacy & Allied Health Sciences*	7,899	8,624	0
Mass Inst of Tech	13,400	14,500	0
Merrimack C	8,100	8,900	0
Montserrat C of Art	5,800	6,590	0
Mount Holyoke C	12,940	14,475	0
Mount Ida C	7,100	7,836	0
New England Banking Inst*	1,950	1,260	0
New England Conservatory of Music	10,850	11,700	0
Newbury C	6,350	7,450	0
Nichols C	6,091	6,685	0
Northeastern U	9,058	9,458	0
Pine Manor C	10,700	11,600	0
Quincy JC	1,900	1,880	0
Regis C	8,215	9,080	0
Simmons C	11,028	12,132	0
Simon's Rock of Bard C	12,180	13,280	0
Smith C	12,212	13,380	0
Springfield C	7,502	8,203	0
Saint Hyacinth C & Sem	3,705	3,685	0
Saint John's Sem	3,200	3,400	0
Stonehill C	8,000	8,771	0
Suffolk U	6,850	7,350	0
Tufts U	13,162	14,355	0
Wellesley C	12,580	13,805	0
Wentworth Inst of Tech	6,634	7,128	0
Western New England C	6,530	7,016	0
Wheaton C	12,370	13,320	0
Wheelock C	8,896	9,696	0
Williams C	12,975	14,425	0
Worcester Polytech Inst	12,000	13,180	0

MICHIGAN

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Adrian C	7,586	8,096	0
Albion C	8,432	9,262	0
Alma C	8,536	9,232	0
Alpena CC	1,070	1,070	1,280
Andrews U	7,125	7,781	0
Aquinas C	6,840	7,494	0
Baker C Flint	3,680	4,100	0
Baker C Owosso	n/a	4,080	0

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
MICHIGAN—Continued			
Bay de Noc CC	$962	$1,119	$1,333
Calvin C	6,180	6,790	0
Ctr for Creative Studies	7,285	7,850	0
Cleary C	3,870	4,245	0
Concordia C	5,648	6,326	0
Detroit C of Business	4,455	4,950	0
Glen Oaks CC	862	930	420
GMI Engr & Mgmt Inst	6,272	6,890	0
Gogebic CC*	742	742	372
Grace Bible C	3,000	3,490	0
Grand Rapids Baptist C	4,510	4,846	0
Great Lakes Bible C	2,825	2,900	0
Great Lakes JC of Business	3,590	3,825	0
Henry Ford CC	1,080	1,160	420
Highland Park CC	1,065	1,065	600
Hillsdale C	8,100	8,600	0
Hope C	7,930	8,580	0
Jordan C	4,100	4,240	0
Kalamazoo C	9,801	10,686	0
Kalamazoo Valley CC	690	750	1,260
Kellogg CC	780	825	1,292
Kendall C Art and Design	6,900	7,650	0
Kirtland CC*	990	990	900
Lake Michigan C	930	930	540
Lake Superior St U*	1,767	1,938	1,822
Lansing CC	825	960	870
Lawrence Tech U	3,780	4,050	0
Macomb CC	1,070	1,070	900
Madonna C	3,110	3,420	0
Marygrove C	5,175	5,584	0
Michigan Christian C	3,590	3,846	0
Michigan Tech U*	2,367	2,355	3,207
Mid Michigan CC	910	1,064	864
Montcalm CC	864	924	810
Muskegon C	3,860	4,080	0
Muskegon CC	870	1,300	400
Northern Michigan U*	1,675	1,830	1,800
Northwestern Michigan C	1,209	1,353	1,056
Northwood Inst	6,180	6,805	0
Oakland U*	2,046	2,220	3,390
Olivet C	6,060	6,860	0
Reformed Bible C	4,022	4,250	0
Saint Clair Co CC	1,085	1,147	1,333
Saint Mary's C	3,390	3,655	0
Schoolcraft C*	953	990	1,020
Siena Heights C	5,640	6,090	0
Southwestern Mich C	930	1,020	510
Spring Arbor C	6,549	6,946	0
U of Detroit	7,560	8,310	0
Washtenaw CC	870	970	930
Wayne St U*	2,045	2,316	2,737
West Shore CC	919	919	840
Western Michigan U*	1,866	2,158	2,910
William Tyndale C	3,820	4,270	0
MINNESOTA			
Alexandria Tech Inst	1,348	1,393	1,350
Augsburg C	8,115	8,837	0
Bethany Lutheran C	4,890	5,200	0
Bethel C	7,800	8,500	0
Carleton C	12,485	14,070	0
C of Saint Benedict	7,765	8,880	0
C of Saint Catherine	7,756	8,702	0
Saint Mary's C	5,994	6,594	0
C of Saint Scholastica	7,281	7,932	0
C of Saint Thomas	7,524	9,064	0
Concordia C Moorhead	7,155	7,625	0
Concordia C Saint Paul	6,120	6,690	0
Dakota Co Tech C	1,666	1,419	1,395
Dr Martin Luther C	2,525	3,000	0
Gustavus Adolphus C	9,250	10,150	0
Hamline U	9,070	10,025	0
Macalester C	10,508	11,542	0
Minneapolis C Art Design	7,540	8,690	0
Minnesota CC Sys			
Anoka-Ramsey CC	1,305	1,373	686
Austin CC	1,305	1,373	686
Brainerd CC	1,305	1,373	686
Fergus Falls CC	1,305	1,373	686
Hibbing CC	1,305	1,373	686
Inver Hills CC	1,305	1,373	686
Itasca CC	1,305	1,373	686
Lakewood CC	1,305	1,373	686
Mesabi CC	1,305	1,373	686
Minneapolis CC	1,305	1,373	686
Normandale CC	1,305	1,373	686
North Hennepin CC	1,305	1,373	686
Northland CC*	1,305	1,373	686
Rainy River CC	1,305	1,373	686
Rochester CC	1,305	1,464	732
Vermilion CC	1,305	1,373	666
Willmar CC	1,305	1,373	686
Worthington CC	1,305	1,373	686
National Education Ctr Brown Inst	4,900	5,100	0
North Central Bible C	4,165	4,420	0
Northwestern C	6,960	7,575	0
Pillsbury Baptist Bible	2,750	3,450	0
Saint John's U	7,765	8,880	0
Saint Mary's C	7,065	8,025	0
Saint Olaf C	9,165	10,150	0
Saint Paul Bible C	4,700	5,890	0
Sch of the Associated Arts	4,400	4,800	0
St U Sys of Minnesota			
Bemidji St U	1,721	1,778	1,015
Mankato St U	1,663	1,782	1,015
Metropolitan St U	1,440	1,550	1,015
Moorhead St U	1,656	1,751	1,015
Saint Cloud St U	1,670	1,770	1,015
Southwest St U	1,680	1,775	1,015
Winona St U	1,679	1,768	1,015
U of Minnesota			
Duluth*	2,105	2,226	3,000
Morris*	2,091	2,240	3,000
Twin Cities*	2,163	2,334	3,000
Tech C Crookston*	2,031	2,180	3,000
Tech C Waseca*	2,011	2,170	3,000
Willmar Tech Inst*	n/a	491	480
MISSISSIPPI			
Alcorn St U	1,650	1,700	1,182
Belhaven C	5,130	5,490	0
Blue Mountain C	2,940	3,182	0
Clarke C	2,780	2,980	0
Copiah-Lincoln CC	610	700	980
Delta St U	1,470	1,604	1,182
East Central CC	750	750	900
Hinds CC	630	690	1,400
Jackson St U	1,500	1,725	1,182
Jones County JC	536	536	1,000
Mary Holmes C	4,890	5,090	0
Meridian CC	600	600	380
Millsaps C	7,386	8,290	0

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
MISSISSIPPI—Continued			
Mississippi C	$4,336	$4,432	$0
Mississippi Delta JC	565	665	1,000
Mississippi St U	1,777	1,987	1,182
Mississippi U for Women	1,580	1,780	1,182
Mississippi Valley St U	1,660	1,700	1,182
Northeast Mississippi CC	650	650	810
Northwest Mississippi CC	754	754	800
Pearl River CC*	550	550	906
Phillips JC of the Mississippi Gulf Coast	3,350	3,350	0
Rust C	3,450	3,552	0
Southeastern Baptist C	1,920	2,060	0
Southwest Mississippi JC	550	700	1,000
Tougaloo C	3,758	3,999	0
U of Mississippi			
Main campus	1,780	1,987	1,182
Medical Ctr	1,672	1,680	1,162
U of Southern Mississippi	1,675	1,834	1,182
Wesley C	1,640	1,640	0
MISSOURI			
Avila C	5,590	6,030	0
Baptist Bible C	1,420	1,420	0
Calvary Bible C	3,200	3,372	0
Central Bible C	2,680	2,920	0
Central Christian C of the Bible	1,838	2,200	0
Central Methodist C	5,400	5,660	0
Central Missouri St U	1,400	1,590	1,350
Columbia C	5,690	6,190	0
Cottey C	3,500	4,000	0
Crowder C	606	606	864
Culver-Stockton C	5,500	5,900	0
Drury C	5,775	6,390	0
Evangel C	4,508	5,118	0
Fontbonne C	6,310	6,750	0
Hannibal-La Grange C	4,050	4,300	0
Harris-Stowe St C	1,185	1,327	1,245
ITT Tech Inst	6,000	6,300	0
Jefferson C	570	570	570
Kansas City Art Inst	8,600	9,255	0
Kemper Military JC	6,700	7,600	0
Lincoln U	1,200	1,320	1,320
Lindenwood C	6,230	7,080	0
Longview CC	750	810	1,140
Maryville C	6,300	6,800	0
Mineral Area C	480	540	810
Missouri Baptist C	4,620	5,030	0
Missouri Southern St C	1,060	1,312	972
Missouri Valley C	6,790	7,119	0
Missouri Western St C	1,154	1,236	1,086
North Central Missouri C	620	680	840
Northeast Missouri St U	1,320	1,398	1,260
Northwest Missouri St U	1,200	1,320	1,095
Ozark Christian C	2,230	2,556	0
Platt JC	4,238	4,750	0
Research C of Nursing	6,440	7,000	0
Rockhurst C	6,480	7,050	0
Rutledge C	3,895	4,198	0
Saint Louis Christian C	2,592	2,800	0
Saint Louis C of Pharmacy*	4,370	4,775	0
Saint Louis CC			
Florissant Valley	855	855	630
Meramec	855	855	630
Saint Louis Conservatory of Music	7,275	7,775	0
Saint Louis U	7,090	7,720	0
Southeast Missouri St U	1,300	1,420	1,370
Southwest Baptist U	4,940	5,360	0
Southwest Missouri St U	1,272	1,622	1,596
State Fair CC	540	579	992
Stephens C	9,000	9,850	0
Tarkio C	5,480	6,300	0
U of Missouri			
Columbia	1,690	1,838	3,360
Kansas City	1,770	1,922	3,360
Rolla	1,918	2,002	3,360
St Louis	1,720	1,843	3,360
Washington U	12,574	13,725	0
Webster U	5,900	6,370	0
Westminster C	6,550	7,020	0
William Jewell C	6,140	6,820	0
William Woods C	6,800	7,100	0
MONTANA			
Carroll C	4,670	5,360	0
C of Great Falls	3,670	3,790	0
Dawson CC	501	774	864
Flathead Valley CC*	558	882	288
Miles CC	606	756	750
Montana U Sys			
Eastern Montana C	1,125	1,308	1,989
Montana C of Mineral Science and Tech	1,091	1,270	1,989
Montana St U	1,343	1,526	1,989
Northern Montana C	1,059	1,242	1,599
U of Montana	1,250	1,443	1,989
Western Montana C	1,167	1,350	1,599
Rocky Mountain C	5,240	5,885	0
NEBRASKA			
Bellevue C*	2,380	2,440	0
Bishop Clarkson C	2,606	3,311	0
Central CC	792	900	390
Chadron St C	1,236	1,296	720
C of Saint Mary	5,980	6,850	0
Concordia Teachers C	5,764	6,100	0
Creighton U	6,762	7,436	0
Dana C	6,090	6,420	0
Doane C	6,600	7,250	0
Hastings C	6,530	6,990	0
Kearney St C	1,236	1,360	720
Lincoln Sch of Commerce	4,275	4,500	0
Metropolitan Tech CC Area	833	833	833
Mid-Plains CC	645	690	120
Midland Lutheran C	6,400	6,500	0
Nebraska Christian C	2,110	2,288	0
Nebraska Wesleyan U	6,488	7,188	0
Northeast CC	756	786	135
Peru St C	1,238	1,320	720
Southeast CC			
Beatrice	834	917	284
Lincoln	807	891	282
Milford	819	903	282
Union C	6,670	7,000	0
U of Nebraska			
Lincoln	1,693	1,790	2,625
Medical Ctr	1,567	1,649	2,625
Omaha	1,460	1,463	2,310

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
NEBRASKA—Continued			
Wayne St C	$1,266	$1,337	$720
Western Nebraska CC	825	915	30
York C	3,480	3,150	0
NEVADA			
Sierra Nevada C	4,200	5,250	0
U of Nevada Sys			
Las Vegas	1,200	1,200	3,000
Reno	1,200	1,200	3,000
Clark Co CC	639	678	3,000
Northern Nevada CC	600	620	2,200
Truckee Meadows CC	660	660	3,000
Western Nevada CC	600	600	3,000
NEW HAMPSHIRE			
Castle JC	3,150	3,600	0
Colby-Sawyer C	9,980	10,730	0
Dartmouth C	13,335	14,445	0
Franklin Pierce C	8,610	9,600	0
Hesser C	4,900	5,145	0
New England C	9,020	9,790	0
New Hampshire C	8,280	8,840	0
New Hampshire Tech Inst	1,600	1,700	2,550
NH Voc Tech C			
Berlin	1,480	1,590	2,550
Claremont	1,485	1,580	2,550
Laconia	1,500	1,615	2,550
Manchester	1,485	1,615	2,550
Nashua	1,495	1,600	2,550
Stratham	1,495	1,595	2,550
Notre Dame C	6,100	7,000	0
Rivier C	6,950	7,490	0
Saint Anselm C	8,170	8,920	0
U Sys of New Hampshire			
U of New Hampshire	2,768	3,014	5,790
Manchester	2,030	2,210	4,460
Keene St C	2,046	2,217	3,660
Plymouth St C	2,026	2,154	3,660
Sch for Lifelong Learning	2,120	2,480	0
White Pines C	5,250	5,250	0
NEW JERSEY			
Assumption C for Sisters	1,200	1,200	0
Atlantic CC	1,073	1,152	3,400
Bergen CC	1,109	1,132	2,962
Berkeley Sch Garret	6,300	6,675	0
Bloomfield C	6,400	6,750	0
Brockdale CC	1,076	1,151	3,000
Burlington Co C*	935	1,050	2,400
Camden Co C	934	1,154	60
Centenary C	7,570	8,800	0
C of Saint Elizabeth	7,175	7,775	0
Co C of Morris	1,140	1,216	1,864
Don Bosco C	3,010	3,230	0
Drew U	12,498	14,102	0
Fairleigh Dickinson U			
Edward Williams C	6,710	7,324	0
Florham Park Madison	7,170	7,840	0
Rutherford	7,170	7,840	0
Teaneck	7,170	7,840	0
Felician C	5,500	5,900	0
Georgian Court C	5,705	6,255	0
Glassboro St C	1,792	2,120	900
Jersey City St C	1,822	2,002	600
Katharine Gibbs Sch	n/a	6,770	0
Mercer Co CC	980	1,060	2,190
Monmouth C	8,240	9,000	0
Montclair St C	1,857	2,037	810
Northeastern Bible C	4,930	5,250	0
Passaic Co CC	1,170	1,170	990
Princeton U	13,380	14,390	0
Rabbinical C of America	4,100	4,100	0
Ramapo C of New Jersey	1,911	2,145	600
Raritan Valley CC	1,144	1,196	3,120
Rider C	8,410	9,160	0
Rutgers U			
Camden	2,628	2,941	2,668
C of Nursing	2,604	2,939	2,668
Cook C	2,860	3,402	2,958
Douglass C	2,728	3,090	2,668
Livingston C	2,759	3,111	2,668
Newark C	2,611	2,946	2,668
Rutgers C	2,744	3,102	2,668
Saint Peter's C	5,718	6,168	0
Salem CC	1,127	1,127	460
Seton Hall U	7,440	8,900	0
Stevens Inst of Tech	12,025	13,100	0
Stockton St C	1,695	1,952	640
Trenton St C	2,080	2,466	600
Upsala C	8,083	8,710	0
Warren Co CC*	920	1,000	1,820
Westminster Choir C	9,350	9,900	0
William Paterson C	1,776	1,776	600
NEW MEXICO			
Albuquerque Tech Voc Inst	642	806	1,332
C of Santa Fe	5,576	6,067	0
C of the Southwest	2,260	2,250	0
Eastern New Mexico U			
Main campus	1,092	1,140	2,874
Clovis	n/a	496	960
Inst of American Indian Arts	2,320	2,325	0
New Mexico Highlands U	1,021	1,121	2,952
New Mexico Inst of Mining and Tech	1,140	1,295	3,328
New Mexico JC	380	380	480
New Mexico Military Inst	1,160	1,160	1,300
New Mexico St U			
Main campus*	1,284	1,386	3,696
Carlsbad	528	552	1,100
Northern NM CC	466	468	948
Saint John's C	11,200	11,905	0
San Juan C	360	80	40
Santa Fe CC*	418	418	672
U of New Mexico			
Main campus	1,272	1,272	3,300
Gallup	504	552	816
Western New Mexico U	904	986	4,100
NEW YORK			
Adelphi U	8,000	8,600	0
Albany C of Pharmacy	5,800	6,200	0
Alfred U	10,900	11,880	0
American Acad McAllister Inst of Funeral Service	4,025	4,475	0
American Acad of Dramatic Arts	5,100	6,175	0
Bard C	13,580	14,736	0
Barnard C	12,918	13,942	0

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
NEW YORK—Continued			
Berkeley Sch of Westchester	$6,675	$7,425	$0
Bramson ORT Tech Inst	4,040	3,740	0
Briarcliffe C for Business*	5,780	5,980	0
Bryant-Stratton Business Inst Albany	4,200	4,416	0
Bryant-Stratton Business Inst Rochester	4,176	4,416	0
Bryant-Stratton Business Inst Syracuse	3,915	4,110	0
Canisius C	6,830	7,552	0
Cazenovia C	6,635	7,210	0
Central City Business Inst	3,870	4,170	0
City U of New York			
Baruch C	1,350	1,350	2,800
Borough of Manhattan CC	1,305	1,305	800
Bronx CC	1,325	1,325	800
Brooklyn C	1,352	1,352	2,800
City C	1,333	1,333	2,800
C of Staten Island	1,344	1,344	2,800
Hostos CC	1,250	1,250	800
Hunter C	1,342	1,342	2,800
John Jay C	1,350	1,350	2,800
Kingsborough CC	1,315	1,315	800
La Guardia CC	1,301	1,326	800
Lehman C	1,302	1,340	2,800
Medgar Evers C	1,277	1,277	800
New York City Tech C	1,299	1,299	2,800
Queens C	1,432	1,432	2,800
Queensborough CC	1,315	1,315	800
York C	1,322	1,322	2,800
Clarkson U*	10,665	11,795	0
Colgate U	12,350	13,710	0
C for Human Services	6,600	8,400	0
C of Aeronautics	5,240	5,120	0
C of Insurance	6,800	7,440	0
C of Mount Saint Vincent	7,590	8,240	0
C of New Rochelle	7,650	8,550	0
C of New Resources	4,125	4,320	0
C of Saint Rose	6,760	7,294	0
Columbia U			
Columbia C	12,878	13,905	0
Engineering	12,878	14,051	0
General Studies	11,430	12,990	0
Nursing	13,150	14,050	0
Concordia C	6,160	6,790	0
Cooper Union	300	300	0
Cornell U	13,140	14,040	0
Culinary Inst of America	8,575	9,023	0
D'Youville C	6,380	7,120	0
Daemen C	6,740	7,220	0
Dominican C of Blauvelt	4,970	5,600	0
Eastman Sch of Music	11,400	12,438	0
Elmira C	8,200	9,100	0
Eugene Lang New Sch	8,380	9,150	0
Five Towns C	4,800	4,800	0
Fordham U	8,525	9,445	0
Friends World C	6,500	7,500	0
Hamilton C	12,750	14,050	0
Hartwick C	10,200	11,200	0
Helene Fuld Sch of Nursing	4,570	5,027	0
Hilbert C	4,682	5,010	0
Hobart C	12,620	13,986	0
Hofstra U	7,730	8,430	0
Houghton C	6,874	7,468	0
Interboro Inst	4,228	4,828	0
Iona C*	6,790	7,200	0
Ithaca C	9,200	10,200	0
Jamestown Business C	3,915	4,105	0
Jewish Theol Sem	4,945	5,450	0
Juilliard Sch	8,250	8,850	0
Keuka C	6,770	7,255	0
King's C	6,747	7,515	0
Laboratory Inst of Merchandising*	6,940	7,750	0
Le Moyne C	7,000	7,680	0

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
NEW YORK—Continued			
Long Island C Hospital Sch of Nursing	$3,132	$3,900	$0
Long Island U			
C W Post	7,950	8,520	0
Southampton	7,990	8,560	0
Manhattan C	7,450	8,500	0
Manhattan Sch of Music	8,150	8,900	0
Manhattanville C	9,775	10,600	0
Mannes C of Music	7,900	8,600	0
Maria C*	3,350	3,550	0
Marist C	7,352	7,852	0
Marymount C	8,020	8,750	0
Marymount Manhattan C	7,290	8,085	0
Mater Dei C	3,631	3,855	0
Medaille C	5,610	6,150	0
Mercy C	5,490	6,000	0
Mount St Mary C	5,565	6,465	0
Nazareth C of Rochester	6,822	7,400	0
New York Inst of Tech	6,200	6,232	0
NY Sch of Interior Design	7,700	8,600	0
New York U	12,250	13,336	0
Niagara U	7,120	7,440	0
Nyack C	6,186	6,380	0
Ohr Somayach Insts	2,700	2,700	0
Olean Business Inst	3,200	3,400	0
Pace U			
New York*	7,180	7,700	0
Pleasantville-Briarcliff	7,180	7,880	0
White Plains	7,180	7,880	0
Parsons Sch of Design	9,390	10,250	0
Paul Smith's C of Arts and Sciences	6,475	6,955	0
Phillips Beth Israel Sch of Nursing	3,945	3,945	0
Polytech U			
Main campus	11,180	12,180	0
Long Island	11,180	12,180	0
Pratt Inst	9,122	9,860	0
Rensselaer Polytech Inst	12,600	13,680	0
Roberts Wesleyan C	7,033	7,548	0
Rochester Inst of Tech	9,240	10,152	0
Russell Sage C	8,270	8,970	0
JC of Albany	4,920	5,320	0
Saint Bonaventure U	7,295	7,933	0
Saint John Fisher C	7,295	7,945	0
Saint John's U	6,100	6,500	0
Saint Joseph's C			
Brooklyn	5,030	5,350	0
Suffolk	5,056	5,350	0
Saint Lawrence U	12,300	13,505	0
Saint Thomas Aquinas C	5,000	5,500	0
Sarah Lawrence C	13,280	14,250	0
Sch of Visual Arts	8,580	9,280	0
Siena C	6,890	7,550	0
Skidmore C	12,440	13,475	0
St U of New York			
Albany*	1,478	1,485	3,350
Binghamton*	1,515	1,512	3,350
Buffalo*	1,465	1,497	3,350
Stony Brook*	1,495	1,495	3,350
Empire St C*	1,387	1,387	3,350
C at Brockport*	1,490	1,490	3,350
C at Buffalo*	1,465	1,465	3,350
C at Cortland*	1,480	1,537	3,350
C at Fredonia*	1,487	1,515	3,350
C at Geneseo*	1,475	1,545	3,350
C at New Paltz*	1,495	1,495	3,350
C at Old Westbury*	1,445	1,445	3,350
C at Oswego*	1,475	1,475	3,350
C at Plattsburgh*	1,492	1,485	3,350
C at Potsdam*	1,475	1,475	3,350
C at Purchase*	1,530	1,505	3,550
Health Science Ctr Brooklyn*	1,465	1,465	3,350
Health Science Ctr Syracuse*	1,440	1,440	3,350

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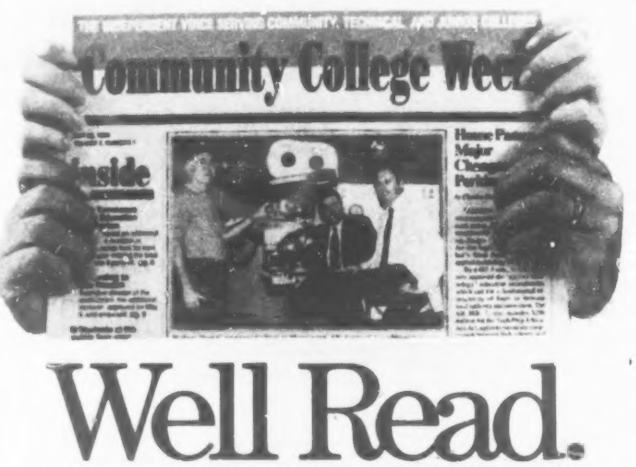
THE INDEPENDENT VOICE SERVING COMMUNITY, TECHNICAL AND JUNIOR COLLEGES
Community College Week
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1989-90 TUITION AND FEES AT MORE THAN 2,400 COLLEGES AND UNIVERSITIES

NEW YORK—Continued

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
St U of New York—Continued			
Health Science Ctr Stony Brook*	$1,495	$1,495	$3,350
C of Tech Alfred*	1,485	1,525	3,350
C of A&T Cobleskill*	1,475	1,488	3,350
C of Tech Delhi*	1,515	1,485	3,350
C of Tech Farmingdale*	1,607	1,607	3,350
C of A&T Morrisville*	1,505	1,505	3,350
C of Environmental Science & Forestry*	1,445	1,440	3,350
Maritime C*	1,615	1,615	3,350
C of Tech Canton*	1,495	1,525	3,350
C of Tech Utica-Rome*	1,475	1,465	3,350
Fashion Inst of Tech*	1,500	1,570	1,850
Adirondack CC*	1,327	1,417	2,050
Broome CC*	1,332	1,400	1,300
Cayuga Co CC	1,452	1,452	1,350
Clinton CC*	1,297	1,347	1,250
Columbia-Greene CC*	1,316	1,366	1,210
Corning CC*	1,440	1,440	1,350
Dutchess CC*	1,415	1,415	1,350
Erie CC North*	1,424	1,524	1,450
Genesee CC	1,301	1,351	1,250
Herkimer Co CC	1,345	1,470	1,350
Hudson Valley CC*	1,299	1,299	1,380
Jamestown CC	1,468	1,468	1,350
Mohawk Valley CC*	1,458	1,451	1,350
Nassau CC*	1,440	1,440	1,350
Niagara Co CC*	1,340	1,340	1,280
North Country CC*	1,430	1,485	2,100
Onondaga CC*	1,426	1,426	2,700
Rockland CC*	1,380	1,406	1,350
Suffolk Co CC*	1,458	1,458	1,350
Ulster Co CC*	1,425	1,439	1,350
Westchester CC*	1,493	1,493	3,375
Syracuse U	9,820	11,034	0
Utica C	8,310	8,970	0
Touro C	5,500	5,700	0
Trocaire C	4,150	4,550	0
Union C	12,313	13,513	0
U of St of NY			
Regents C Degrees	285	375	0
U S Merchant Marine Acad	n/a	2,523	0
U of Rochester	12,305	13,425	0
Utica Sch of Commerce	3,665	4,080	0
Vassar C	12,490	13,840	0
Wadhams Hall Sem and C	2,995	3,195	0
Wagner C	7,646	8,680	0
Webb Inst of Naval Architecture	0	0	0
Wells C	10,410	11,120	0
William Smith C	12,620	13,985	0
Yeshiva U	8,540	9,420	0

NORTH CAROLINA

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Alamance CC*	243	243	1,881
Anson CC*	244	246	1,881
Asheville Buncombe Tech CC*	246	246	1,881
Atlantic Christian C	4,830	5,190	0
Barber-Scotia C	3,230	3,363	0
Beaufort Co CC*	243	243	1,881
Belmont Abbey C	5,722	6,764	0
Bennett C	4,465	4,965	0
Brevard C	4,150	4,430	0
Brunswick CC*	246	246	1,881
Campbell U	5,896	6,386	050
Cape Fear CC*	240	240	1,881
Carteret CC*	238	238	1,881
Catawba C	6,200	6,800	0
Catawba Valley CC*	243	243	1,881
Cecils C	3,025	3,185	0
Central Carolina CC*	243	243	1,881
Central Piedmont CC*	231	231	1,881
Chowan C	3,880	4,130	0
Cleveland CC*	253	249	2,130
Coastal Carolina CC*	240	240	1,881
C of the Albemarle*	253	253	1,881
Craven CC*	252	252	1,881
Davidson C	10,235	11,327	0
Duke U	12,286	13,928	0
Durham Tech CC*	234	234	1,881
East Coast Bible C	2,450	2,765	0
Edgecombe CC*	234	288	2,202
Elon C	5,460	6,170	0
Gardner-Webb C	5,330	5,770	0
Gaston C*	249	249	1,881
Greensboro C	5,156	5,646	0
Guilford C	7,910	8,690	0
Guilford Tech CC*	246	291	2,160
Haywood CC*	245	245	1,881
High Point C	5,285	5,660	0
Isothermal CC*	253	298	2,527
James Sprunt CC*	249	294	2,250
John Wesley C	2,890	2,997	0
Johnson C Smith U	4,348	5,055	0
Johnston CC*	246	246	1,881
Lees-McRae C	4,320	4,900	0
Lenoir CC*	252	252	1,881
Lenoir-Rhyne C	6,730	7,310	0
Livingstone C	3,574	3,574	0
Louisburg C	4,480	4,740	0
Mars Hill C	5,100	5,650	0
Martin CC*	240	240	1,881
Mayland CC*	243	243	1,881
McDowell Tech C*	244	244	1,881
Meredith C	4,650	4,910	0
Methodist C	6,150	6,650	0
Montgomery CC*	248	258	1,881
Montreat-Anderson C	4,108	4,784	0
Mount Olive C*	4,300	4,995	0
Nash CC*	243	243	1,881
NC Wesleyan C	6,000	6,400	0
Pamlico CC*	240	285	921
Peace C	3,595	3,915	0
Pfeiffer C	5,535	6,090	0
Piedmont CC*	243	288	2,250
Queens C	6,750	7,550	0
Richmond CC*	252	328	2,583
Roanoke Bible C	1,683	2,000	0
Rockingham CC*	252	252	1,881
Saint Andrews Presbyterian C	7,100	7,650	0
Saint Augustine's C	3,500	3,625	0
Saint Mary's C	5,300	5,300	0
Salem C	7,720	8,425	0
Sampson CC*	252	288	1,864
Southeastern CC*	251	296	2,257
Southwestern CC	245	332	2,508
Stanly CC*	243	243	1,881
Wake Forest U	7,950	8,800	0
Wake Tech C*	234	279	2,250
Warren Wilson C	6,650	6,650	0

NORTH CAROLINA—Continued

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Wayne CC	$243	$243	$1,881
Western Piedmont CC*	253	247	1,881
Wilkes CC*	251	251	1,881
Wingate C	4,420	5,070	0
Winston-Salem St U	839	896	3,372

NORTH DAKOTA

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Jamestown C	5,920	6,170	0
ND St Bd of Higher Ed			
U of North Dakota			
Main campus	1,472	1,724	2,262
Lake Region	1,302	1,332	1,728
Williston	1,304	1,358	1,728
North Dakota St U			
Main campus	1,389	1,656	2,262
Bottineau	1,283	1,327	1,728
Dickinson St U*	1,299	1,359	1,773
Mayville St U	1,292	1,385	1,770
Minot St U	1,254	1,323	1,770
ND St C of Science	1,197	1,260	1,728
Valley City St U	1,278	1,338	1,770
Bismarck St C	1,242	1,284	1,728
Trinity Bible C	3,090	3,848	0
United Tribes Tech C	n/a	2,250	0
U of Mary	4,650	4,950	0

OHIO

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Antioch C	10,460	11,460	0
Antioch Sch Adult Extension	5,376	4,140	0
Antonelli Inst of Art and Photography	5,580	5,990	0
Art Acad of Cincinnati	5,300	5,825	0
Ashland C	7,955	8,632	0
Baldwin-Wallace C	7,845	8,625	0
Belmont Tech C	750	900	450
Bluffton C	6,525	7,065	0
Borromeo C of Ohio	4,100	4,500	0
Bowling Green St U*	2,480	2,600	3,130
Capital U	8,700	9,530	0
Case Western Reserve U	11,000	12,000	0
Cedarville C	4,730	4,972	0
Central Ohio Tech C	1,509	1,509	576
Central St U	1,890	2,109	2,208
Chatfield C	2,970	3,270	0
Cincinnati C of Mortuary Science	4,660	5,250	0
Cincinnati Tech C	1,620	1,645	1,100
Circleville Bible C	3,350	3,465	0
Clark St CC*	1,632	1,692	1,530
Cleveland C of Jewish Studies	3,000	3,015	0
Cleveland Inst of Art	7,876	9,420	0
Cleveland Inst of Music	9,046	9,970	0
C of Mount Saint Joseph	6,368	6,940	0
C of Wooster	10,600	11,570	0
Columbus C of Art and Design	6,400	6,900	0
Columbus St CC	1,403	1,529	1,746
Cuyahoga CC			
Eastern	1,157	1,225	1,575
Metro	1,157	1,225	1,575
Western	1,157	1,225	1,575
Defiance C	6,530	7,184	0
Denison U	11,360	12,400	0
Dyke C*	3,830	4,320	0
Edison St CC	1,350	1,440	1,260
Electronic Tech Inst	3,450	3,910	0
Findlay C	6,730	7,375	0
Franciscan U of Steubenville	5,670	6,070	0
Franklin U	3,205	3,480	0
God's Bible Sch and C	2,570	2,590	0
Heidelberg C	9,390	10,001	0
Hiram C	9,604	10,339	0
Hocking Tech C	1,401	1,473	1,473
ITT Tech Inst Dayton	4,650	4,970	0
ITT Tech Inst Youngstown*	6,050	6,473	0
Jefferson Tech C	765	900	675
John Carroll U	6,784	7,424	0
Kent St U			
Main campus	2,630	2,826	2,600
Ashtabula	2,171	2,307	2,600
East Liverpool	2,171	2,307	2,600
Salem	2,171	2,307	2,600
Stark Co	2,171	2,307	2,600
Trumbull	2,171	2,307	2,600
Tuscarawas	2,171	2,307	2,600
Kenyon C	11,840	13,585	0
Kettering C of Med Arts	3,060	3,450	0
Lake Erie C	7,200	7,360	0
Lourdes C	4,210	4,660	0
Malone C	6,207	6,744	0
Marietta C	9,450	10,250	0
Miami-Jacobs C	3,000	3,000	0
Miami U Oxford*	3,026	3,400	3,800
Mount Union C	9,320	10,070	0
Mount Vernon Nazarene C	4,654	5,052	0
Muskingum C	9,380	10,325	0
Northwest Tech C	1,350	1,800	1,710
Northwestern Business C	3,255	3,255	0
Notre Dame C	5,000	5,750	0
Oberlin C	12,926	14,220	0
Ohio Dominican C	5,900	6,300	0
Ohio Northern U	8,385	9,600	0
Ohio St U			
Ag and Tech Inst	1,962	2,106	4,089
Columbus	2,040	2,190	4,089
Lima	1,962	2,106	4,089
Mansfield	1,962	2,106	4,089
Marion	1,962	2,106	4,089
Newark	1,962	2,106	4,089
Ohio U	2,394	2,556	2,859
Ohio Wesleyan U	10,076	11,128	0
Otterbein C	8,268	9,261	0
Owens Tech C	1,452	1,460	1,200
Pontifical C Josephinum	2,755	2,755	0
Shawnee St U	1,593	1,968	675
Stark Tech C	1,610	1,925	900
Tiffin U	4,700	5,100	0
U of Akron			
Main campus*	2,078	2,203	2,780
Wayne*	2,078	2,203	2,780
U of Cincinnati			
Main campus*	2,532	2,748	3,804
Clermont*	2,532	2,785	3,850
Raymond Walters*	2,532	2,649	3,783
U of Dayton	6,920	7,720	0
U of Rio Grande	1,575	1,665	2,985
U of Toledo*	2,094	2,240	2,670
Urbana U	5,676	6,507	0
Ursuline C	5,400	5,850	0

OHIO—Continued

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Virginia Marti C of Fashion & Art	$5,925	$6,480	$0
Walsh C	4,775	5,584	0
West Side Inst of Tech	7,000	7,690	0
Wilberforce U	5,330	5,674	0
Wilmington C	6,980	7,480	0
Wittenberg U	10,702	11,745	0
Wright St U*	2,124	2,379	2,379
Xavier U	7,080	7,650	0
Youngstown St U	1,800	2,001	1,200

OKLAHOMA

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Bacone C	2,620	2,620	0
Bartlesville Wesleyan C	4,495	4,670	0
Cameron U	1,043	1,209	1,485
Central St U	1,001	1,160	1,757
Connors St C*	765	870	1,373
East Central U	1,020	1,190	1,757
Eastern Oklahoma St C	765	865	1,400
El Reno JC*	765	864	747
Hillsdale Free Will Baptist C	2,230	2,380	0
National Ed Ctr Spartan Sch of Aeronautics	7,320	7,680	0
Northwestern St U	1,014	1,186	1,757
Oklahoma Baptist U	3,510	3,740	0
Oklahoma Christian C	3,540	3,820	0
Oklahoma City U	4,228	4,558	0
Okla Panhandle St U	1,085	1,251	1,756
Oklahoma St U			
Main campus	1,274	1,484	2,751
Oklahoma City	877	877	2,370
Okmulgee	870	1,103	2,790
Oral Roberts U	5,075	5,182	0
Phillips U	4,624	5,352	0
Rose St C	683	782	1,477
Saint Gregory's C	2,925	3,160	0
Southern Nazarene U	4,190	4,560	0
Southwestern Okla St U	990	1,300	1,500
U of Oklahoma			
Norman	1,264	1,507	2,912
Health Sciences Ctr*	1,276	1,465	3,162
U of Sci and Arts of Okla	998	1,068	1,890
U of Tulsa	7,000	7,450	0

OREGON

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Bassist C	6,400	7,450	0
Central Oregon CC	675	705	2,715
Chemeketa CC*	720	828	2,160
Clackamas CC	690	705	1,845
Clatsop CC	720	720	2,088
Eugene Bible C	2,993	3,192	0
George Fox C	6,880	7,485	0
Lane CC*	813	813	2,244
Lewis and Clark C	10,401	11,520	0
Linfield C	8,812	9,595	0
Linn-Benton CC	756	828	864
Marylhurst C for Lifelong Learning*	6,130	6,375	0
Mount Hood CC	675	720	1,980
Northwest Christian C	4,818	5,050	0
Oregon Polytech Inst	3,946	4,138	0
Ore St Sys of Higher Ed			
Eastern Oregon St C*	1,512	1,590	0
Oregon Inst of Tech*	1,607	1,764	3,111
Oregon St U*	1,604	1,708	2,868
Southern Oregon St C*	1,596	1,656	2,575
U of Oregon*	1,649	1,782	2,868
Pacific Northwest C of Art	5,520	5,786	0
Pacific U	8,700	9,485	0
Portland CC	675	705	2,670
Reed C	11,350	12,780	0
Rogue CC	720	792	1,620
Treasure Valley CC	660	660	660
Umpqua CC	828	864	3,852
U of Portland	7,800	7,750	0
Warner Pacific C	6,344	6,520	0
Western Baptist C	5,205	5,622	0
Willamette U	9,480	9,980	0

PENNSYLVANIA

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Acad of the New Church	2,637	2,928	0
Albright C	9,935	10,835	0
Allegheny C	10,425	11,540	0
Allentown C of Saint Francis De Sales	6,070	6,580	0
Alvernia C	5,158	5,658	0
Antonelli Inst of Art and Photography	6,000	6,090	0
Art Inst of Philadelphia	6,275	6,755	0
Art Inst of Pittsburgh	6,000	6,525	0
Baptist Bible C of Pa	4,480	4,655	0
Beaver C	8,460	9,210	0
Bryn Mawr C	12,155	13,500	0
Bucknell U	12,460	13,855	0
Bucks Co CC	1,256	1,256	2,464
Butler Co CC	1,182	1,182	2,622
Cabrini C	6,335	7,060	0
Carlow C	7,560	7,940	0
Carnegie Mellon U	12,080	13,080	0
Cedar Crest C	8,960	9,680	0
Central Pa Business Sch	3,625	3,950	0
Chatham C*	8,470	9,100	0
Chestnut Hill C	6,450	7,000	0
CHI Inst	5,225	5,370	0
Churchman Business Sch	n/a	3,370	0
C Misericordia	5,850	7,280	0
CC of Allegheny Co			
Allegheny	1,152	1,329	2,400
Boyce	n/a	1,329	2,400
North	n/a	1,329	2,400
South	n/a	1,329	2,400
CC of Beaver Co	1,250	1,310	3,120
CC of Philadelphia	1,600	1,690	3,300
Curtis Inst of Music*	125	200	0
Dean Inst of Tech	4,320	4,860	0
Delaware Co CC*	1,014	1,062	2,064
Delaware Valley C of Science and Ag	7,470	8,125	0
Dickinson C	12,230	13,400	0
Duquesne U	7,350	8,040	0
Eastern C	7,530	8,310	0
Elizabethtown C	8,835	9,700	0
Franklin and Marshall C	12,460	13,690	0
Gannon U	6,040	7,050	0
Geneva C	6,170	6,650	0
Gettysburg C	12,200	13,825	0
Gratz C	1,550	2,100	0
Grove City C	3,800	4,050	0
Gwynedd-Mercy C	6,000	6,650	0
Harcum JC	5,108	5,580	0
Harrisburg Area CC	1,086	1,086	2,140
Haverford C	12,770	13,900	0

PENNSYLVANIA—Continued

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Holy Family C	$5,490	$5,990	$0
Hussian Sch of Art	5,025	5,215	0
Immaculata C	5,550	6,100	0
Johnson Tech Inst	3,255	3,575	0
Juniata C	9,540	10,600	0
Keystone JC	5,690	6,410	0
King's C	6,400	7,110	0
La Roche C	5,400	6,020	0
La Salle U	7,350	8,200	0
Lafayette C	12,025	13,050	0
Lancaster Bible C	5,320	5,720	0
Lebanon Valley C	8,960	9,800	0
Lehigh Co CC*	1,305	1,365	2,640
Lehigh U	12,450	13,550	0
Lincoln U	2,350	2,400	900
Lycoming C	8,440	9,280	0
Manor JC	5,270	5,420	0
Marywood C	5,650	6,550	0
Mercyhurst C	7,000	7,480	0
Messiah C	6,750	7,450	0
Montgomery Co CC	1,254	1,254	2,400
Moore C of Art	8,700	9,500	0
Moravian C	9,880	10,805	0
Mount Aloysius JC	5,590	5,970	0
Muhlenberg C	11,720	13,115	0
Neumann C	6,100	6,790	0
Northampton Co Area CC	1,440	1,500	2,820
NE Christian JC	4,208	4,688	0
Peirce JC	4,900	5,130	0
Pennsylvania Inst of Tech	5,076	5,676	0
Pennsylvania St U			
Allentown	3,494	3,634	4,266
Altoona	3,494	3,634	4,266
Beaver	3,494	3,634	4,266
Berks	3,494	3,634	4,266
Delaware	3,494	3,634	4,266
Du Bois	3,494	3,634	4,266
Erie-Behrend	3,610	3,754	4,146
Fayette	3,494	3,634	4,266
Harrisburg	3,610	3,754	4,146
Hazleton	3,494	3,634	4,266
McKeesport	3,494	3,634	4,266
Mont Alto	3,494	3,634	4,266
New Kensington	3,494	3,634	4,266
Ogontz	3,494	3,634	4,266
Schuylkill	3,494	3,634	4,266
Shenango Valley	3,494	3,634	4,266
U Park	3,610	3,754	4,146
Wilkes-Barre	3,494	3,634	4,266
Worthington-Scranton	3,494	3,634	4,266
York	3,494	3,634	4,266
Phila C of the Bible	5,150	5,515	0
Philadelphia C of Pharmacy and Science	7,175	7,830	0
Philadelphia C of Textiles and Science	6,950	7,775	0
Pinebrook JC	4,500	4,895	0
Pittsburgh Tech Inst	11,000	11,000	0
Point Park C	6,452	6,902	0
Robert Morris C	4,060	4,320	0
Rosemont C	7,240	7,500	0
Saint Francis C	7,360	8,040	0
Saint Joseph's U	7,600	8,600	0
Saint Vincent C	6,908	7,559	0
Seton Hill C	7,020	7,690	0
Spring Garden C	6,860	7,700	0
St Sys of Higher Ed			
Bloomsburg U of Pa	2,290	2,338	1,856
California U of Pa	2,420	2,468	1,856
Cheyney U of Pa	2,190	2,388	1,856
Clarion U of Pa	2,358	2,478	1,856
E Stroudsburg U of Pa	2,334	2,392	1,856
Edinboro U of Pa	2,420	2,468	1,856
Indiana U of Pa	2,404	2,484	1,856
Kutztown U of Pa	2,322	2,370	1,856
Lock Haven U of Pa	2,310	2,358	1,856
Mansfield U of Pa	2,354	2,468	1,856
Millersville U of Pa	2,350	2,536	1,856
Shippensburg U of Pa	2,396	2,444	1,856
Slippery Rock U of Pa	2,442	2,504	1,856
West Chester U of Pa	2,350	2,398	1,856
Susquehanna U	9,565	11,500	0
Swarthmore C	13,230	14,530	0
Temple U*	3,894	4,046	3,254
Thaddeus Stevens St Sch of Tech	3,010	3,110	0
Thiel C	7,730	7,900	0
Thomas Jefferson U*	9,200	9,850	0
Tracey-Warner Sch	4,125	4,135	0

PENNSYLVANIA—Continued

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Triangle Tech Greensburg Ctr	$4,820	$5,112	$0
U of Pennsylvania	12,750	13,950	0
U of Pittsburgh Greensburg*	3,710	3,990	3,870
U of Scranton	7,184	7,920	0
U of the Arts*	8,800	9,440	0
Ursinus C	9,000	10,620	0
Villa Maria C	6,395	6,870	0
Villanova U	9,100	9,850	0
Washington and Jefferson C	9,740	10,740	0
Waynesburg C	6,386	6,816	0
Westminster C	7,700	8,550	0
Westmoreland Co CC	1,035	1,193	2,490
Widener U	8,290	8,950	0
Wilkes C	7,185	7,755	0
Wilson C	8,774	9,414	0
York C of Pennsylvania	3,736	3,904	0

RHODE ISLAND

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Brown U	13,759	14,920	0
Bryant C	7,648	8,719	0
CC of Rhode Island	950	1,014	944
Johnson & Wales U	6,810	7,194	0
New England Inst of Tech	5,925	6,375	0
Providence C	9,550	10,235	0
Rhode Island C	1,500	1,703	2,828
RI Sch of Design	11,350	12,210	0
Roger Williams C	8,006	9,105	0
Salve Regina Newport C	8,400	9,825	0
U of Rhode Island	2,331	2,518	4,106

SOUTH CAROLINA

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Anderson C	4,800	5,120	0
Baptist C at Charleston	5,554	5,832	0
Benedict C	4,001	4,571	0
Bob Jones U	3,160	3,340	0
Central Wesleyan C	5,300	5,880	0
Citadel	2,285	2,372	2,848
Clemson U*	2,220	2,374	3,863
Coker C	6,400	6,964	0
C of Charleston	2,110	2,110	2,100
Columbia Bible C and Sem	4,013	4,200	0
Columbia C	6,900	7,600	0
Converse C	7,600	8,350	0
Denmark Tech C	720	960	750
Erskine C	7,420	8,025	0
Florence Darlington C	685	685	375
Francis Marion C	1,400	1,550	1,550
Furman U	8,100	9,074	0
Greenville Tech C	561	672	477
Limestone C	5,596	5,860	0
Morris C	3,218	3,540	0
Newberry C	6,200	6,600	0
North Greenville C	4,400	5,000	0
Piedmont Tech C*	750	795	450
Presbyterian C	7,807	8,756	0
Rutledge C Spartanburg	3,895	3,895	0
South Carolina St C	1,450	1,650	1,730
Spartanburg Methodist C	4,000	4,800	0
Sumter Area Tech C	614	659	348
Tri-County Tech C	600	600	588
U of South Carolina			
Columbia	2,228	2,448	3,100
Aiken	1,600	1,700	1,840
Beaufort	1,350	1,400	1,600
Coastal Carolina	1,600	1,750	2,140
Lancaster	1,350	1,400	1,600
Salkehatchie	1,350	1,400	1,600
Spartanburg	1,600	1,750	2,140
Sumter	1,350	1,400	1,600
Union	1,350	1,400	1,600
Williamsburg Tech C	600	600	0
Wofford C	7,135	8,085	0
York Tech C	450	450	450

SOUTH DAKOTA

	1988-89 Tuition and fees	1989-90 Tuition and fees	1989-90 Added out-of-state tuition
Augustana C	7,345	8,000	0
Black Hills St C	1,572	1,624	1,212
Dakota St C	1,545	1,600	1,212
Dakota Wesleyan U	5,000	5,500	0
Huron U	5,090	5,500	0
Mount Marty C	5,335	5,775	0
National C	5,385	5,685	0
Northern St C	1,500	1,558	1,213
Presentation C	4,668	5,180	0

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SOUTH DAKOTA—Continued

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Sioux Falls C	$5,750	$6,210	$0
Sisseton-Wahpeton CC	1,950	2,070	0
South Dakota Sch of Mines and Tech	1,712	1,781	1,432
South Dakota St U	1,669	1,737	1,432
U of South Dakota	1,709	1,806	1,432

TENNESSEE

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Belmont C	4,200	4,650	0
Carson-Newman C	5,030	5,570	100
Crichton C	3,176	3,440	0
Christian Brothers C	5,790	6,360	0
David Lipscomb U	3,950	4,345	0
Draughons JC Nashville*	2,925	2,935	0
Fisk U*	4,600	4,600	0
Free Will Baptist Bible C	2,710	2,766	0
Freed-Hardeman C	3,920	4,260	0
Hiwassee C	2,970	2,970	0
Johnson Bible C	2,500	2,750	0
King C	4,950	5,550	0
Knoxville C	4,890	5,090	0
Lambuth C	4,182	4,182	0
Lee C	3,444	3,720	0
LeMoyne-Owen C	3,380	3,600	0
Lincoln Memorial U	3,700	4,066	0
Martin Methodist C	3,750	4,000	0
Maryville C	6,315	6,995	0
Memphis C of Art	6,215	6,765	0
Milligan C	5,316	5,742	0
O'More C of Design	5,170	5,200	0
Pellissippi St Tech CC	726	784	2,430
Rhodes C	9,612	10,660	0
St U and CC Sys of Tenn			
Austin Peay St U	1,282	1,372	2,954
East Tennessee St U	1,202	1,292	2,954
Memphis St U	1,354	1,452	2,954
Middle Tennessee St U	1,152	1,232	2,954
Tennessee St U	1,202	1,292	2,954
Tennessee Tech U	1,281	1,358	2,954
Chattanooga St Tech CC	718	776	2,430
Cleveland St CC	724	782	2,430
Columbia St CC	720	778	2,430
Dyersburg St CC	726	784	2,430
Jackson St CC	726	784	2,430
Motlow St CC	730	788	2,430
Nashville St Tech Inst	716	774	2,430
Roane St CC	724	782	2,430
Shelby St CC	720	756	2,430
St Tech Inst Memphis	718	776	2,430
Tri-Cities St Tech Inst	720	778	2,430
Volunteer St CC	726	784	2,430
Walters St CC	722	780	2,430
Southern C of Seventh Day Adventists	5,800	6,200	0
Tenn Inst of Electronics	n/a	2,808	0
Tennessee Temple U	3,380	3,560	0
Tennessee Wesleyan C	4,190	4,614	0
Tomlinson C*	2,880	3,300	0
Trevecca Nazarene C	4,260	4,910	0
Tusculum C	5,200	5,440	0
Union U	3,685	3,985	0
U of Tennessee			
Chattanooga	1,282	1,312	2,952
Martin	1,330	1,430	2,952
Knoxville	1,466	1,582	2,952
Memphis	1,287	1,390	3,006
U of the South	11,050	11,980	0
Vanderbilt U	11,975	13,345	0
William Jennings Bryan C	4,680	5,210	0

TEXAS

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Abilene Christian U	4,440	5,670	0
Alamo CC Dist			
Saint Philip's C	440	420	840
San Antonio C	440	440	840
Alvin CC	284	344	900
Amarillo C	479	479	1,207
Amber U	3,000	3,150	0
Angelina C	492	492	360
Angelo St U	915	975	3,060
Arlington Baptist C	1,945	2,350	0
Austin C	7,250	8,020	0
Austin CC	616	654	2,550
Bauder Fashion C	5,310	5,490	0
Baylor C of Dentistry	1,300	1,392	0
Baylor U	4,720	5,110	0
Bee Co C	330	297	3,360
Blinn C	626	772	1,886
C of the Mainland	135	186	600
Collin Co CC Dist	n/a	336	1,260
Concordia Lutheran C	4,500	4,500	0
Cooke Co C	435	435	365
Criswell C	2,145	2,190	0
Dallas Christian C	2,040	2,340	0
Dallas Co CC Sys			
Brookhaven C	364	364	1,490
Cedar Valley C	364	364	1,490
Eastfield C	364	364	1,490
El Centro C	364	364	1,490
Mountain View C	364	364	1,490
North Lake C	364	364	1,490
Richland C	364	364	1,490
Del Mar C	384	480	1,200
East Texas Baptist U	3,600	3,750	0
East Texas St U	870	930	3,120
Frank Phillips C	370	430	120
Galveston C	422	408	480
Hardin-Simmons U	4,327	4,842	0
Houston Baptist U	3,960	4,300	0
Houston CC	750	750	1,560
Huston-Tillotson C	3,950	4,000	0
Incarnate Word C	5,690	6,198	0
ITT Tech Inst Houston	6,237	6,490	0
Jacksonville C	2,500	2,500	0
Kilgore C	300	330	1,170
Lamar U	900	970	3,130
Lee C	302	328	960
Le Tourneau C	5,790	6,136	0
Lon Morris C	3,190	3,354	0
Lubbock Christian U	4,800	5,180	0
McMurry C	4,260	4,650	0
Midland C	372	457	550
Midwestern St U	906	960	3,120
Miss Wade's Fashion Merchandising C	4,090	4,115	0
Navarro C	680	680	156
North Harris Co C	260	320	660
Northeast Texas CC	500	560	730
Northwood Inst	6,180	6,780	0
Our Lady of the Lake U	5,186	5,650	0
Paul Quinn C	2,900	2,900	0
Rice U	5,525	6,350	0
Saint Edward's U	6,108	6,580	0
Saint Mary's U	5,770	6,250	0

TEXAS—Continued

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Sam Houston St U	$880	$1,000	$3,120
San Jacinto C North	310	310	960
Schreiner C	5,897	6,370	0
Southern Methodist U	9,064	9,880	0
Southwest Texas St U	982	1,042	3,060
SW Adventist C	5,886	6,294	0
SW Assemblies of God C*	3,150	3,150	0
Southwestern U	6,950	7,600	0
Stephen F Austin St U	850	910	3,120
Tarrant Co JC	330	330	3,600
Temple JC*	508	508	1,020
Texas A&M U Sys			
Main campus	1,060	1,200	3,120
Galveston	743	915	3,120
Prairie View A&M U	887	1,052	3,120
Texas Christian U	6,536	7,096	0
Texas C	3,430	3,605	0
Texas Lutheran C	4,830	5,300	0
Texas Tech U	986	1,046	3,120
Texas Wesleyan C	4,800	5,200	0
Texas Woman's U	904	842	3,120
Trinity U	8,160	9,006	0
Trinity Valley CC	336	336	1,560
Tyler JC	350	350	810
U of Central Texas*	3,320	3,660	0
U of Dallas	6,450	7,230	0
U of Houston			
Clear Lake	914	1,030	3,120
Downtown	950	1,010	3,120
U Park	840	990	3,120
Victoria	900	960	3,120
U of Mary Hardin-Baylor	3,870	3,900	0
U of Saint Thomas	4,520	5,660	0
U Sys of South Texas			
Laredo St U	810	870	3,120
Texas A&I U	840	910	3,120
U of Texas			
Arlington	922	994	3,120
Austin	874	964	3,120
Dallas	870	930	3,120
El Paso	870	925	3,120
Health Sci Ctr Houston	665	725	3,120
Medical Branch	654	711	3,600
Nursing Galveston	655	720	3,120
Pan American U	780	1,020	1,110
Permian Basin	816	876	3,120
San Antonio	840	930	3,120
SW Medical Ctr	725	760	3,120
Tyler	840	861	3,120
Vernon Regional JC	400	400	200
Victoria C	300	316	1,020
Wayland Baptist U	3,184	3,729	0
Weatherford C	410	430	2,100
Western Texas C	540	540	150
Wharton Co JC	570	690	960
Wiley C	3,946	3,946	0

UTAH

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Brigham Young U	1,720	1,800	0
ITT Tech Inst	4,313	4,863	0
Latter-Day Saints Business C	1,565	1,640	0
Utah Higher Ed Sys			
C of Eastern Utah	915	963	1,653
Dixie C	1,060	1,124	1,931
Salt Lake CC	1,136	1,197	3,081
Southern Utah St C	1,167	1,245	2,085
U of Utah	1,644	1,769	3,203
Westminster C of Salt Lake City	5,610	6,060	0

VERMONT

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Bennington C	15,670	16,495	0
Burlington C	5,420	5,880	0
Champlain C	5,500	5,950	0
C of Saint Joseph*	5,450	6,000	0
Goddard C	9,798	10,386	0
Green Mountain C	6,775	6,900	0
Landmark C	17,650	18,850	0
Marlboro C	12,200	13,300	0
New England Culinary Inst	10,780	11,280	0
Norwich U	10,300	11,200	0
Saint Michael's C	8,285	9,110	0
Sch for Int'l Training	7,420	8,626	0
Southern Vermont C	4,900	6,000	0
Sterling C	8,900	9,230	0
Trinity C	7,200	8,040	0
U of Vermont	3,726	3,986	8,000
Vermont St C Sys			
Castleton St C	2,575	2,897	3,048
CC of Vermont	1,760	1,890	1,800
Lyndon St C	2,625	2,834	2,048
Vermont Tech C*	3,163	3,439	2,832

VIRGINIA

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Averett C	6,250	6,900	0
Bluefield C	4,180	4,550	0
Bridgewater C	6,990	7,650	0
Christendom C	6,330	6,720	0
Christopher Newport C	1,630	1,870	1,730
C of Health Sciences	1,968	1,968	0
C of William and Mary	2,966	3,336	4,956
Richard Bland C	1,350	1,350	1,980
Eastern Mennonite C	5,828	6,240	0
Emory and Henry C	5,870	6,280	0
Ferrum C	6,050	6,500	0
George Mason U	2,040	2,292	2,784
Hampden-Sydney C	9,530	10,155	0
Hampton U	5,150	5,742	0
Hollins C	9,200	9,900	0
James Madison U	2,702	2,834	2,592
Liberty U	4,212	4,750	0
Longwood C	2,598	2,700	2,250
Lynchburg C	7,950	8,800	0
Mary Baldwin C	7,750	8,050	0
Mary Washington C	2,264	2,304	2,676
Marymount U	7,500	8,400	0
National Business C	3,456	4,038	0
Norfolk St U	1,606	1,878	2,132
Old Dominion U	2,414	2,524	2,520
Radford U	2,076	2,226	514
Randolph-Macon C	8,425	9,205	0
Randolph-Macon Woman's C	9,410	10,080	0
Roanoke C	8,500	9,400	0
Saint Paul's C	4,342	4,342	0
Shenandoah C and Conservatory of Music	6,900	7,200	0
Southern Sem C	6,500	6,900	0
Sweet Briar C	10,140	10,980	0
U of Richmond	9,080	9,900	0
U of Virginia	2,526	2,700	4,400
Clinch Valley C	1,574	[illegible]	[illegible]

VIRGINIA—Continued

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Va Commonwealth U	$2,415	$2,547	$3,495
Virginia CC Sys			
Blue Ridge CC	764	803	3,162
Central Virginia CC	779	798	3,162
Dabney S Lancaster CC	790	810	3,162
Danville CC	783	802	3,162
Eastern Shore CC	788	807	3,162
Germanna CC	785	807	3,162
JS Reynolds CC	791	810	3,162
John Tyler CC	779	798	3,162
Lord Fairfax CC*	795	814	3,162
Mountain Empire CC	779	798	3,162
New River CC	803	822	3,162
Northern Virginia CC	779	798	3,162
Patrick Henry CC	785	804	3,162
Paul D Camp CC	779	798	3,162
Piedmont Virginia CC	789	808	3,162
Rappahannock CC	786	806	3,162
Southside Virginia CC	785	804	3,162
Southwest Virginia CC	784	803	3,162
Thomas Nelson CC*	785	806	3,162
Tidewater CC	779	798	3,162
Virginia Highlands CC	779	798	3,162
Virginia Western CC	779	802	3,162
Wytheville CC	788	807	3,162
Virginia Intermont C	5,050	5,400	0
Virginia Military Inst	3,705	3,560	4,100
Va Polytech Inst and St U	2,544	2,730	2,976
Virginia St U	2,926	3,071	2,064
Virginia Union U	4,961	5,300	0
Virginia Wesleyan C	6,800	7,400	0
Washington and Lee U	9,005	10,205	0

WASHINGTON

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Antioch U Seattle	5,850	6,300	0
Art Inst of Seattle	6,080	6,723	0
Bellevue CC*	780	861	2,412
Big Bend CC*	780	834	2,412
Central Washington U	1,317	1,563	3,852
Centralia C	780	822	2,412
City U	4,725	5,355	0
Clark C	825	867	2,412
Cogswell C North	6,470	6,470	0
Columbia Basin C	801	845	2,412
Cornish C of the Arts	6,405	6,930	0
Eastern Washington U	1,317	1,518	3,807
Edmonds CC*	816	858	2,412
Everett CC	780	822	2,412
Evergreen St C*	1,317	1,317	3,267
Gonzaga U	8,300	8,838	0
Grays Harbor C*	780	822	2,412
Green River CC	780	822	2,412
Heritage C	3,840	4,150	0
Highline CC*	780	822	1,590
Lower Columbia C	807	849	2,412
Lutheran Bible Inst*	4,100	4,275	0
Northwest C of the Assemblies of God	4,878	5,131	0
Olympic C	780	822	2,412
Pacific Lutheran U	8,520	9,360	0
Peninsula C	765	822	2,412
Pierce C*	807	852	2,412
Puget Sound Christian C	3,225	3,960	0
Saint Martin's C	7,690	8,290	0
Seattle CC Dist			
North Seattle CC	780	822	2,412
Seattle Central CC*	780	762	2,295
South Seattle CC	780	822	3,234
Seattle Pacific U	8,061	9,000	0
Seattle U	8,055	9,010	0
Shoreline CC	758	819	3,231
Skagit Valley C*	780	822	2,412

WASHINGTON—Continued

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
South Puget Sound CC	$780	$822	$2,412
Tacoma CC	780	837	2,412
U of Puget Sound	9,100	10,300	0
U of Washington	1,797	1,827	3,255
Walla Walla C	7,470	7,960	0
Walla Walla CC	780	822	2,412
Washington St CC Dist 17			
Spokane CC	816	832	3,234
Spokane Falls CC	816	832	3,234
Washington St U	1,798	1,827	3,255
Wenatchee Valley C	780	828	2,412
Western Washington U	1,344	1,518	3,907
Whatcom CC*	746	804	2,412
Whitman C	9,640	10,790	0
Whitworth C	8,415	9,090	0
Yakima Valley CC	785	828	2,412

WEST VIRGINIA

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Alderson-Broaddus C	6,456	7,336	0
Appalachian Bible C	3,040	3,140	0
Beckley C	1,480	2,155	0
Bethany C	9,150	9,972	0
Bluefield St C	990	1,176	1,750
Concord C	990	1,224	1,790
Davis & Elkins C	6,474	6,858	0
Marshall U	1,132	1,487	2,070
Ohio Valley C*	3,764	3,915	0
Parkersburg CC	624	724	1,534
Salem C	5,750	6,250	0
Shepherd C	990	1,254	1,790
U of Charleston	6,350	6,750	0
West Liberty St C	976	1,160	1,730
West Virginia Inst of Tech	1,010	1,232	1,850
West Va Northern CC	630	730	1,564
West Virginia St C	992	1,220	1,790
West Virginia U	1,400	1,692	2,530
Potomac St C	978	1,196	1,580
West Virginia Wesleyan C	7,100	8,430	0
Wheeling Jesuit C	7,095	7,515	0

WISCONSIN

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Alverno C	5,632	5,976	0
Bellin C of Nursing	4,847	5,222	0
Beloit C	10,004	10,902	0
Blackhawk Tech C	1,042	1,080	7,074
Cardinal Stritch C	5,600	6,040	0
Carroll C	8,600	9,360	0
Carthage C	7,540	8,700	0
Chippewa Valley Tech C	1,147	1,096	7,074
Concordia C	5,600	6,100	0
Edgewood C*	5,700	6,000	0
Fox Valley Tech C	1,066	1,165	7,074
Gateway Tech C	1,157	1,268	7,074
Lakeland C	6,600	6,995	0
Lakeshore Tech C	1,147	1,235	7,074
Lawrence U	10,770	12,615	0
Madison Area Tech C	1,144	1,158	7,074
Madison Business C	2,700	2,845	0
Marian C of Fond du Lac	5,930	6,330	0
Marquette U	6,984	7,534	0
Mid-State Tech C	1,171	1,258	7,074
Milwaukee Area Tech C	1,035	1,126	7,074
Milwaukee Inst of Art and Design	5,898	6,250	0
Milwaukee Sch of Engr	7,200	7,800	0
Moraine Park Tech C	1,038	1,058	7,074
Mount Mary C	5,540	5,790	0
Mount Senario C	5,250	5,640	0
Nicolet Area Tech Inst	1,432	1,058	7,074
North Central Tech C	1,147	1,251	7,074
Northeast Wis Tech C	1,085	1,235	7,074
Northland C	6,450	6,850	0
Northwestern C	2,369	2,887	0
Ripon C	10,267	11,252	0

WISCONSIN—Continued

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Saint Norbert C	$7,690	$8,455	$0
Silver Lake C	5,500	6,100	0
Southwest Wis Tech C	1,147	1,160	7,074
U of Wisconsin			
Green Bay	1,585	1,681	3,361
La Crosse	1,600	1,694	3,361
Madison	1,856	2,004	4,133
Oshkosh	1,579	1,688	3,361
Platteville	1,618	1,715	3,361
Stout	1,598	1,706	3,361
Superior	1,576	1,677	3,361
Whitewater	1,611	1,719	3,361
Ctr Baraboo-Sauk	1,349	1,354	2,880
Ctr Barron	1,410	1,418	2,880
Ctr Fond du Lac	1,369	1,392	2,880
Ctr Fox Valley	1,357	1,379	2,880
Ctr Manitowoc	1,353	1,352	2,880
Ctr Marshfield / Wood	1,378	1,396	2,880
Ctr Marathon	1,349	1,349	2,880
Ctr Marinette	1,365	1,365	2,880
Ctr Richland	1,456	1,463	2,880
Ctr Rock Co	1,351	1,353	2,880
Ctr Sheboygan	1,353	1,359	2,880
Ctr Washington	1,371	1,383	2,880
Ctr Waukesha	1,346	1,349	2,880
Viterbo C	5,980	6,460	0
Waukesha Co Tech C	1,147	1,164	7,074
Western Wis Tech C	1,185	1,350	7,740
Wis Indianhead Tech C	1,171	1,200	7,074
Wisconsin Lutheran C	5,860	6,360	0

WYOMING

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Casper C	570	594	762
Central Wyoming C	580	604	762
Eastern Wyoming C	524	550	760
Laramie Co CC	621	621	762
Northwest CC	634	658	762
Sheridan C	592	616	762
U of Wyoming	833	1,003	2,036
Western Wyoming CC	554	578	762

AMERICAN SAMOA

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
American Samoa CC	78	88	144

GUAM

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Guam CC	170	322	0
U of Guam	1,408	1,500	780

NORTHERN MARIANAS

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Northern Marianas C	1,182	1,182	0

PUERTO RICO

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
Caribbean U C	2,235	2,235	0
Catholic U of Puerto Rico	2,283	2,307	0
Conservatory of Music of Puerto Rico	150	150	0
Inter American U of PR San German	2,000	2,500	0
Turabo U	2,050	2,050	0
U Polytech of PR*	2,670	3,000	0
U of Puerto Rico			
Arecibo	406	406	0
Bayamon Tech U C	340	480	0
Carolina	510	810	0
Cayey U C*	490	590	0
Humacao U C*	565	684	0
Mayaguez*	582	582	0
Ponce Tech U C*	340	480	0
Rio Piedras	562	662	0

VIRGIN ISLANDS

	1988-89	1989-90	
	Tuition and fees	Tuition and fees	Added out-of-state tuition
U of the Virgin Islands	1,150	1,266	1,686

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THE CHRONICLE OF HIGHER EDUCATION

Almanac

September 6, 1989 ★ $5

FACTS ABOUT HIGHER EDUCATION IN THE NATION, THE STATES, AND D.C.

Demographics ★ Politics ★ Colleges ★ Faculty ★ Students ★ Money

THE NATION

THE AGENDA facing America's 3,500-plus colleges and universities in 1989-90 is both lively and sobering.

Against a backdrop of tight budgets, higher education finds itself pressured by concerns of an immediate nature, such as boosting the enrollment and retention of minority students. Educators also are being asked to confront problems whose impact may not be felt for several years, such as the prospect of a shortage of faculty members near the turn of the century.

A sampling of the issues that lie ahead reveals a few new challenges and a host of unresolved problems from the past:

- The quality of campus life is winning renewed attention, as colleges re-examine racial and ethnic tensions, hazing problems at fraternities, and alcohol and drug abuse.
- The animated and often heated debates about curriculum, teaching, and the undergraduate experience in general continue in 1989-90. Center stage once again is occupied by the battle between proponents of the Great Books approach and those who want a more multicultural curriculum, but a stronger emphasis also will be placed on improving science education and foreign-language proficiency.
- Educators are increasingly worried about finding the financial resources to upgrade aging research facilities and physical plants.

Underlying all of the issues on higher education's 1989-90 calendar is the perennial problem of too few dollars from both the federal government and many states.

The federal budget deficit and the nation's unwillingness to accept higher taxes mean funds from Washington for higher education will not grow significantly. In addition to fiscal constraints, Congressional dissatisfaction with student-aid programs is growing. Education Secretary Lauro F. Cavazos has proposed new regulations to curb high default rates on student loans. If the plan falls short, Congress may make changes designed to lower defaults and fraud in aid programs.

From state to state, the financial picture varies. Although few institutions are talking about severe cutbacks or widespread layoffs, state budgets generally are expected to be lean in 1989-90. Guided by the "politics of scarcity," many public colleges and universities will be forced to make choices about programs and services they can do without.

As a result, institutions are searching aggressively for other sources of dollars besides state and federal governments.

The era of the "mega" fund raising that began when Stanford University announced it would attempt to raise $1.1-billion by October 1991 is likely to continue, as other institutions, including Harvard, Yale, and Cornell Universities, consider $1-billion-plus campaigns.

Small liberal-arts institutions, such as Smith and Davidson Colleges, also are setting unusually high fund-raising goals—in the neighborhood of $150-million. And 1989-90 is sure to see further aggressive efforts by public institutions to raise money from private sources.

At a time when the nation is concerned about its ability to compete economically with other countries, college and university leaders are paying more and more attention to the deterioration of physical plants and research facilities. Finding public or private dollars to finance building renovations, however, is no easy task. Lacking alternatives, some colleges may simply defer repairs once again.

Aside from the condition of science buildings, researchers are likely to be confronted with further Congressional inquiries into scientific fraud and conflicts of interest in research. Both Congress and state legislatures also may be expected to consider more measures to curb the use of animals in laboratory research.

Beyond the politics and financing of science, several projects are making 1989-90 an especially exciting year for some researchers. Legislation passed by Congress in 1989 will provide the first financing for construction of the Superconducting Supercollider. A new golden age of astronomy is expected to begin in March 1990 when the Hubble Space Telescope is launched aboard the space shuttle after being delayed since the *Challenger* explosion. In addition, the National Institutes of Health are establishing the National Center for Genome Research to support the effort to make a complete map of human genes.

In other quarters, the federal government's decision to support huge, expensive projects has raised a concern that funds won't be available for facilities, basic research, and graduate education.

WIDESPREAD ANXIETY about the rising cost of attending college continues. Tuition-prepayment plans—one means of helping families afford higher education—are the subject of renewed debate, following a private company's announcement of the first such nationwide program.

The Department of Justice has taken an interest in the issue of college costs, investigating whether some leading private colleges violate federal antitrust laws in the way they set tuition rates and award financial aid.

Back on the campuses, efforts to enroll, retain, and graduate more minority students and to hire, promote, and grant tenure to more minority faculty members are receiving widespread attention once again. More and more institutions are likely to create partnerships with elementary and secondary schools in an effort to increase the pool of minority students attending college.

"Campus climate" is the catch phrase for the expanding interest in assessing the quality of college life. The American Council on Education and the Carnegie Foundation for the Advancement of Teaching plan to examine such problems as racial tensions and crime on campuses in a special report in early 1990.

As one solution to campus tensions, some institutions are putting new policies into effect aimed at setting penalties for speech deemed offensive because it is racist, sexist, or homophobic. However, in August 1989 a federal judge found one such policy, at the University of Michigan, unconstitutional. The free-speech-vs.-offensive-speech argument could itself prove to be a source of tension on some campuses.

Moral outrage also continues to build over recent scandals that appear to undermine the integrity of big-time college sports. The increasing sentiment among members of Congress and the general public that colleges need to act on the issue may revitalize what has been a sluggish movement to reform college athletics. Among other proposals, a group of higher-education leaders is reportedly considering the creation of a national commission on college sports that would press for significant changes.

Another long-range problem that educators can only hope to begin addressing in 1989-90 is the forecast of a shortage of highly qualified faculty members in the next decade. Among the proposed solutions, some officials are calling for a national policy to increase graduate enrollment, particularly of members of minority groups. Whether the federal government, states, and institutions will be receptive to that proposal is a major, but as-yet-unanswered, question.

DEMOGRAPHICS

Population: 247,732,000

Age distribution:

Up to 17	26.0%
18 to 24	10.8%
25 to 34	17.8%
35 and older	45.4%

Racial and ethnic distribution:

American Indian	0.7%
Asian	1.6%
Black	11.7%
White	83.4%
Other and unknown	2.5%
Hispanic (may be any race)	6.4%

Educational attainment of adults:

At least 4 years of high school	66.5%
At least 1 to 3 years of college	31.9%
At least 4 years of college	16.2%

Per-capita personal income: $16,489

New high-school graduates in:

1989-90 (estimate)	2,594,438
1999-2000 (estimate)	2,823,928

High-school dropout rate: 28.9%

POLITICAL LEADERSHIP

President:
George Bush, term ends 1993

Vice-President:
Dan Quayle, term ends 1993

Secretary of Education:
Lauro F. Cavazos

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	599
Public 2-year institutions	992
Private 4-year institutions	1,536
Private 2-year institutions	460
Total	3,587

Vocational institutions: 8,469

FACULTY MEMBERS

Full-time faculty members:

At public institutions	288,520
At private institutions	102,211

Proportion with tenure:

At public institutions	68.9%
At private institutions	54.7%

Proportion who are women:

At public institutions	28.1%
At private institutions	27.9%

Average pay of full-time professors:

At public 4-year institutions	$37,903
At public 2-year institutions	$30,960
At private 4-year institutions	$35,747
At private 2-year institutions	$21,692

STUDENTS

Enrollment:

At public 4-year institutions	5,434,010
At public 2-year institutions	4,541,054
At private 4-year institutions	2,558,075
At private 2-year institutions	235,168
Undergraduate	11,047,902
First-time freshmen	2,246,352
Graduate	1,451,938
Professional	268,467
Total	12,768,307

Enrollment highlights:

Women	53.5%
Full-time	56.6%
Minority	18.4%
Foreign	2.8%
10-year change in total enrollment	Up 13.1%

Degrees awarded:

Associate	437,137
Bachelor's	991,339
Master's	289,557
Doctorate	34,120
Professional	72,750

Residence of new students: 85% of all new students attend colleges in their home states.

Proportion of all minority students who enroll at:

Public institutions	82.3%
Private institutions	17.7%
4-year institutions	53.3%
2-year institutions	46.7%

Test scores: Students averaged 18.8 on the A.C.T. and 904 on the S.A.T.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,414
At public 2-year institutions	$660
At private 4-year institutions	$6,658
At private 2-year institutions	$3,684

Expenditures:

Public institutions	$63,193,853,000
Private institutions	$34,341,889,000

State funds for higher-education operating expenses: $36,216,283,000

Two-year change: Up 12%

State spending on student aid:
Need-based: $1,533,186,000
Non–need-based: $181,544,000
Other: $205,118,000

Total spending on research and development by doctorate-granting universities: $11,930,997,000

Sources:

Federal government	60.6%
State and local governments	8.4%
Industry	6.4%
The institution itself	17.7%
Other	6.9%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$1,261,076,000
GI Bill	$759,254,000
Pell Grants	$3,901,788,000

Total federal spending on college-and-university-based research and development: $7,240,090,000

Selected programs:

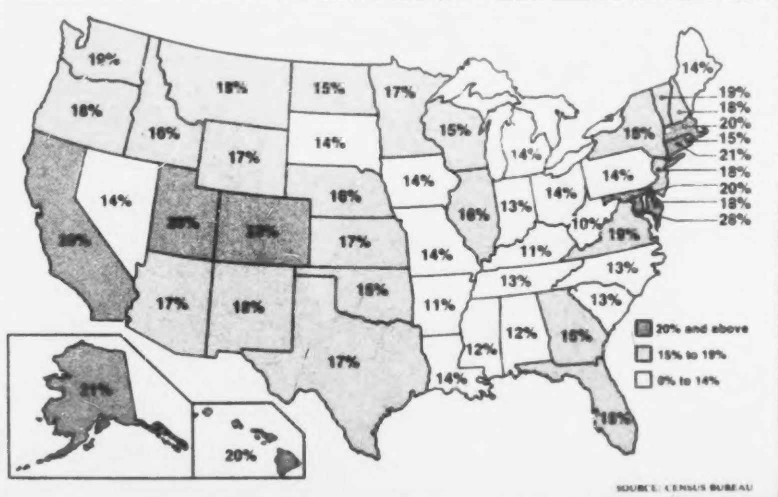
Department of Health and Human Services	$3,833,764,000
National Science Foundation	$987,457,000
Department of Defense	$1,098,911,000
Department of Agriculture	$295,985,000
Department of Energy	$370,531,000

The Nation

- Population
- Educational Attainment of Adults
- High-School Graduates
- High-School Dropout Rate
- Number of Institutions
- Faculty Members

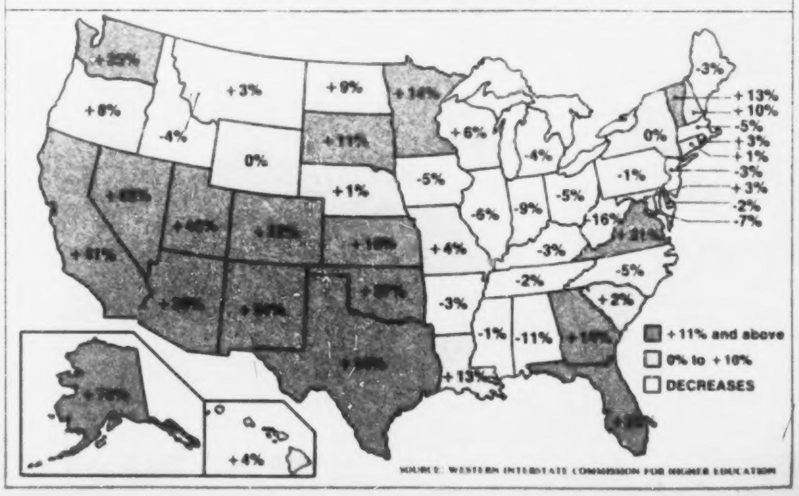
	1989 population	Rank	Educational attainment of adults in 1980			1989-90 high-school graduates	High-school dropout rate in 1987	Number of institutions, fall 1987					Faculty members, 1985-86	
			4 years of high school	1-3 years of college	4 years of college			Public 4-year	Public 2-year	Private 4-year	Private 2-year	Vocational	Public institutions	Private institutions
Alabama	4,150,000	22	56.5%	24.7%	12.2%	42,631	29.8%	19	40	18	16	78	6,245	787
Alaska	565,000	49	82.5%	43.7%	21.1%	6,029	33.3%	3	9	3	1	60	729	47
Arizona	3,649,000	24	72.4%	38.0%	17.4%	31,876	35.6%	3	16	12	4	211	4,553	178
Arkansas	2,414,000	33	55.5%	22.3%	10.8%	27,612	22.5%	10	10	10	8	130	2,882	386
California	28,607,000	1	73.5%	42.0%	19.6%	251,461	33.9%	31	107	143	33	1,179	30,583	3,841
Colorado	3,393,000	26	78.6%	44.1%	23.0%	35,377	26.3%	13	15	17	9	134	4,721	723
Connecticut	3,257,000	28	70.3%	35.9%	20.7%	32,797	19.5%	7	17	21	4	144	3,039	2,591
Delaware	658,000	47	68.6%	32.4%	17.5%	7,593	29.9%	2	3	5	0	23	1,192	55
District of Columbia	615,000	48	67.1%	41.5%	27.5%	4,337	44.5%	2	0	16	0	38	548	3,061
Florida	12,535,000	4	66.7%	31.6%	14.9%	102,114	41.4%	9	29	43	13	373	10,772	2,521
Georgia	6,524,000	11	56.4%	27.9%	14.6%	62,692	37.5%	19	30	30	16	153	6,296	1,982
Hawaii	1,121,000	39	73.8%	38.8%	20.3%	12,264	29.2%	3	6	5	0	40	1,641	126
Idaho	1,013,000	42	73.7%	37.2%	15.8%	12,030	21.2%	4	2	3	2	42	1,235	65
Illinois	11,599,000	6	66.5%	31.4%	16.2%	124,290	24.3%	12	47	91	16	443	13,074	6,197
Indiana	5,542,000	14	66.4%	24.6%	12.5%	67,281	26.3%	14	15	38	11	168	6,765	2,522
Iowa	2,780,000	29	71.5%	28.6%	13.9%	34,185	13.6%	3	20	36	6	96	4,128	2,033
Kansas	2,485,000	32	73.3%	34.2%	17.0%	26,987	17.9%	8	21	21	4	91	4,448	738
Kentucky	3,742,000	23	53.1%	21.8%	11.1%	41,345	32.6%	8	14	22	16	138	4,602	1,160
Louisiana	4,510,000	20	57.7%	26.7%	13.9%	44,190	39.9%	14	6	10	4	216	6,086	991
Maine	1,203,000	38	68.7%	29.4%	14.4%	14,894	20.7%	8	5	13	5	32	1,295	514
Maryland	4,665,000	18	67.4%	34.9%	20.4%	49,623	25.5%	13	19	21	3	210	5,329	1,495
Massachusetts	5,863,000	13	72.2%	35.8%	20.0%	62,399	23.5%	14	17	72	17	223	5,676	9,612
Michigan	9,266,000	8	68.0%	30.0%	14.3%	111,185	37.6%	15	31	49	8	356	11,522	2,229
Minnesota	4,298,000	21	73.1%	34.5%	17.4%	53,192	9.4%	10	23	33	11	138	4,537	2,207
Mississippi	2,680,000	31	54.8%	25.6%	12.3%	27,884	35.2%	9	20	12	6	58	4,535	293
Missouri	5,163,000	15	63.5%	27.2%	13.9%	56,209	25.6%	13	14	54	12	239	5,230	2,480
Montana	808,000	44	74.4%	36.5%	17.5%	9,762	13.8%	6	6	3	3	48	1,249	146
Nebraska	1,590,000	37	73.4%	32.8%	15.5%	19,560	13.3%	7	13	13	2	58	2,756	826
Nevada	1,049,000	41	75.5%	35.1%	14.4%	9,784	27.9%	2	4	2	1	72	878	n/a
New Hampshire	1,116,000	40	72.3%	35.1%	18.2%	12,414	27.3%	4	8	17	4	35	1,123	810
New Jersey	7,827,000	9	67.4%	31.5%	18.3%	84,880	22.8%	14	18	26	5	259	6,605	2,527
New Mexico	1,595,000	36	68.9%	34.7%	17.6%	17,162	28.3%	6	16	4	0	42	2,200	56
New York	17,761,000	2	66.3%	32.2%	17.9%	173,268	37.1%	49	48	183	53	461	19,558	16,347
North Carolina	6,602,000	10	54.8%	27.0%	13.2%	67,946	32.2%	17	58	36	16	73	9,575	2,292
North Dakota	664,000	46	66.4%	35.1%	14.8%	8,012	11.6%	6	8	3	1	28	1,400	89
Ohio	10,787,000	7	67.0%	26.5%	13.7%	132,681	17.2%	22	39	65	29	345	11,010	4,589
Oklahoma	3,285,000	27	66.0%	31.2%	15.1%	35,676	27.4%	14	14	13	5	89	4,373	930
Oregon	2,750,000	30	75.6%	38.5%	17.9%	26,971	27.2%	8	13	24	1	151	3,563	917
Pennsylvania	11,844,000	5	64.7%	24.3%	13.6%	130,654	21.3%	43	21	106	48	451	11,256	9,328
Rhode Island	996,000	43	61.1%	28.3%	15.4%	9,580	30.6%	2	1	9	0	34	1,281	1,084
South Carolina	3,507,000	25	53.7%	26.7%	13.4%	37,621	33.1%	12	21	20	11	66	4,590	1,050
South Dakota	708,000	45	67.9%	31.7%	14.0%	8,269	20.3%	7	0	9	3	24	978	339
Tennessee	4,933,000	16	56.2%	24.5%	12.6%	49,187	32.2%	10	14	42	21	142	5,233	2,299
Texas	17,451,000	3	62.6%	33.8%	16.9%	187,138	34.9%	40	66	57	8	447	20,004	4,035
Utah	1,750,000	35	80.0%	44.1%	19.9%	23,098	19.4%	4	5	2	3	59	2,367	n/a
Vermont	557,000	50	71.0%	34.7%	19.0%	6,540	22.0%	4	2	14	3	13	742	687
Virginia	6,068,000	12	62.4%	34.0%	19.1%	68,203	26.0%	15	24	32	8	191	8,275	1,795
Washington	4,612,000	19	77.6%	40.2%	19.0%	47,318	22.2%	6	27	19	2	166	5,471	1,185
West Virginia	1,871,000	34	56.0%	20.4%	10.4%	22,407	23.8%	12	4	9	4	59	2,476	432
Wisconsin	4,803,000	17	69.6%	29.2%	14.8%	57,846	14.6%	13	18	30	3	129	8,347	1,570
Wyoming	503,000	51	77.9%	37.9%	17.2%	5,987	10.7%	1	7	0	1	14	1,055	n/a
U.S. total	**247,732,000**		**66.5%**	**31.9%**	**16.2%**	**2,594,438**	**28.9%**	**599**	**992**	**1,536**	**460**	**8,469**	**288,520**	**102,211**

Proportion of Adults With Four or More Years of College, 1980



SOURCE: CENSUS BUREAU

Projected Change in the Number of High-School Graduates: 1989-90 to 1999-2000



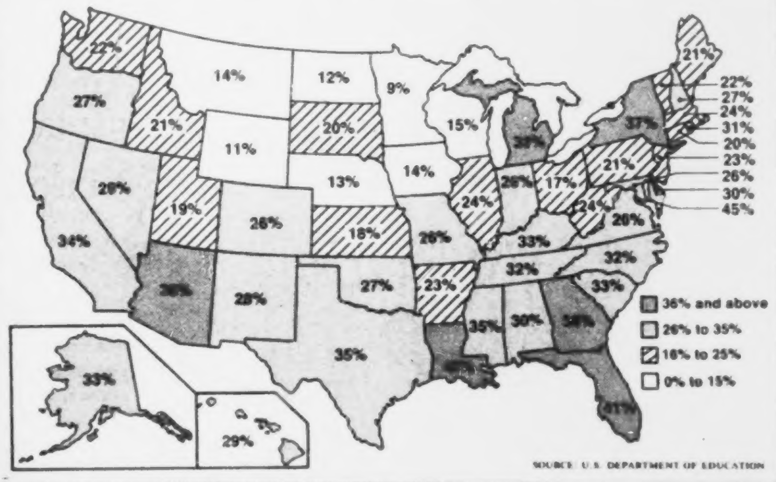
SOURCE: WESTERN INTERSTATE COMMISSION FOR HIGHER EDUCATION

- Average Pay of Full-Time Faculty Members
- Enrollment

	Average pay of full-time faculty members, 1987-88				Enrollment, fall 1987								
	Public 4-year	Public 2-year	Private 4-year	Private 2-year	Public 4-year	Public 2-year	Private 4-year	Private 2-year	All undergraduate	First-time freshmen	Graduate	Professional	Total
Alabama	$32,953	$28,046	$24,915	$26,865	105,914	56,364	17,468	3,602	164,041	40,181	16,298	3,009	183,348
Alaska	$40,617	$43,608	$33,311	n/a	11,341	14,650	946	0	25,694	759	1,243	0	26,937
Arizona	$41,074	$31,004	$28,523	n/a	89,373	139,179	6,888	1,793	213,799	56,345	21,983	1,451	237,233
Arkansas	$30,572	$23,165	$26,043	n/a	53,885	14,428	9,025	1,935	72,089	16,772	5,869	1,315	79,273
California	$47,783	$39,441	$42,055	$24,136	503,253	1,077,279	196,190	11,290	1,588,445	277,766	170,120	29,447	1,788,012
Colorado	$36,397	$26,174	$35,139	n/a	106,571	55,023	17,708	4,281	158,146	30,026	22,434	3,003	183,583
Connecticut	$44,374	$35,428	$40,907	$23,855	62,024	40,537	58,090	1,731	128,126	30,244	30,893	3,363	162,382
Delaware	$37,624	$29,661	$29,951	n/a	21,456	8,191	7,003	0	32,711	7,186	2,910	1,029	36,650
District of Columbia	$36,743	n/a	$39,578	n/a	10,851	0	66,715	0	46,267	9,705	22,712	8,587	77,566
Florida	$37,552	$31,066	$32,121	$21,980	150,916	254,376	80,590	4,082	438,128	75,808	44,604	7,232	489,964
Georgia	$35,342	$28,241	$31,335	$21,329	124,991	49,364	41,651	8,060	189,718	45,922	26,911	7,437	224,066
Hawaii	$38,449	$31,526	$22,900	n/a	22,404	20,342	9,545	0	47,100	8,427	4,716	475	52,291
Idaho	$31,846	$27,348	$25,966	n/a	29,781	5,010	2,397	8,379	39,906	9,863	5,365	296	45,567
Illinois	$35,258	$34,067	$37,538	$21,983	197,057	324,060	156,401	9,436	587,099	109,599	82,833	17,022	686,954
Indiana	$35,748	$22,753	$34,277	$23,628	166,736	34,721	51,397	3,410	221,107	50,420	29,845	5,312	256,264
Iowa	$37,162	$25,720	$28,451	$22,632	69,335	42,672	42,898	3,325	135,016	35,439	17,120	6,094	158,230
Kansas	$32,885	$27,594	$22,135	$17,151	85,846	47,537	11,809	1,247	125,625	26,506	18,595	2,219	146,439
Kentucky	$32,950	$25,083	$25,925	$18,715	93,857	28,162	23,236	8,096	131,422	28,156	17,445	4,484	153,351
Louisiana	$29,963	$25,636	$34,227	n/a	134,148	14,344	23,596	1,141	147,524	30,631	20,239	5,466	173,229
Maine	$32,900	$24,710	$32,637	$24,664	29,887	5,272	11,437	958	44,190	9,085	2,818	546	47,554
Maryland	$37,886	$34,109	$38,188	$22,421	107,196	96,515	34,799	852	204,581	30,763	31,005	3,776	239,362
Massachusetts	$42,187	$30,331	$42,128	$24,007	113,440	73,651	220,982	15,843	342,575	77,906	68,172	13,169	423,916
Michigan	$39,294	$36,689	$28,655	$23,914	244,288	215,025	72,557	3,616	471,061	94,593	54,823	9,602	535,486
Minnesota	$38,692	$33,339	$31,694	$25,269	132,316	53,780	46,306	4,810	207,882	46,716	23,628	5,702	237,212
Mississippi	$29,828	$23,566	$22,873	$15,994	50,382	42,902	9,914	2,312	95,206	27,067	8,673	1,631	105,510
Missouri	$33,260	$30,748	$31,737	$18,034	111,911	59,335	77,303	3,229	210,717	36,375	31,646	9,415	251,778
Montana	$29,648	$25,679	$23,782	n/a	27,234	4,624	3,312	712	32,340	5,365	3,325	217	35,882
Nebraska	$31,619	$24,106	$27,820	$20,975	55,552	29,349	15,474	453	87,803	16,644	10,392	2,633	100,828
Nevada	$37,654	$31,157	$21,395	n/a	23,425	24,366	247	25	44,058	6,655	3,820	185	48,063
New Hampshire	$35,124	$25,593	$37,157	$13,618	22,612	8,287	23,058	2,206	48,181	11,330	7,237	745	56,163
New Jersey	$42,919	$34,768	$40,364	n/a	131,859	103,549	56,471	2,554	249,369	41,634	38,881	6,183	294,433
New Mexico	$33,100	$24,863	$26,677	n/a	47,471	33,827	1,776	0	71,939	9,012	10,510	625	83,074
New York	$43,047	$36,759	$39,435	$20,379	342,436	224,610	394,534	30,964	812,195	163,900	154,147	26,202	992,544
North Carolina	$36,514	$22,802	$27,554	$22,512	135,340	123,590	55,535	6,786	287,980	62,157	27,183	6,088	321,251
North Dakota	$29,959	$26,699	$20,409	$19,547	27,358	6,990	2,466	238	33,670	8,249	2,975	407	37,052
Ohio	$40,235	$30,052	$31,299	$19,676	270,167	121,664	103,198	23,435	449,360	98,903	57,026	12,078	518,464
Oklahoma	$31,763	$27,143	$30,398	$20,449	93,619	55,287	18,464	5,360	148,293	31,424	20,765	3,672	172,730
Oregon	$33,981	$29,289	$30,216	n/a	66,616	66,842	18,870	329	133,594	26,387	15,723	3,340	152,657
Pennsylvania	$37,233	$32,393	$36,316	$21,808	222,583	88,627	209,846	33,314	471,730	113,999	68,690	13,950	554,370
Rhode Island	$38,127	$31,108	$40,104	n/a	23,210	13,107	35,391	0	62,814	13,700	8,606	288	71,708
South Carolina	$34,051	$22,484	$26,727	$23,458	74,799	38,553	22,381	5,108	120,988	32,124	17,357	2,496	140,841
South Dakota	$28,958	n/a	$22,753	$19,206	24,147	0	6,900	708	28,178	6,623	3,154	423	31,755
Tennessee	$35,396	$26,714	$32,047	$18,897	102,702	51,402	42,302	5,600	175,569	34,492	20,931	5,506	202,006
Texas	$36,301	$29,994	$34,824	$22,761	376,531	333,179	88,975	3,541	694,452	134,756	92,400	15,374	802,226
Utah	$34,060	$26,460	$25,557	n/a	52,622	21,831	31,220	1,119	95,676	15,285	9,840	1,276	106,792
Vermont	$35,520	$27,525	$31,077	$22,235	15,390	3,970	11,809	2,073	29,492	6,578	3,381	369	33,242
Virginia	$40,038	$30,747	$30,270	$20,173	151,589	123,994	42,011	1,432	276,121	48,972	36,821	6,084	319,026
Washington	$37,295	$29,267	$30,289	n/a	77,722	136,485	30,258	1,407	224,660	68,450	18,158	3,054	245,872
West Virginia	$29,825	$23,644	$24,022	$19,575	58,311	9,648	7,105	2,192	67,415	15,568	8,609	1,232	77,256
Wisconsin	$37,780	$32,506	$31,241	n/a	151,329	89,204	39,621	1,563	251,259	51,357	26,752	3,706	281,717
Wyoming	$37,053	$27,889	n/a	n/a	10,401	15,040	0	621	24,149	5,837	1,707	206	26,062
U.S. total	**$37,903**	**$30,960**	**$35,747**	**$21,692**	**5,434,010**	**4,541,054**	**2,558,075**	**235,168**	**11,047,902**	**2,246,352**	**1,451,938**	**268,467**	**12,768,307**

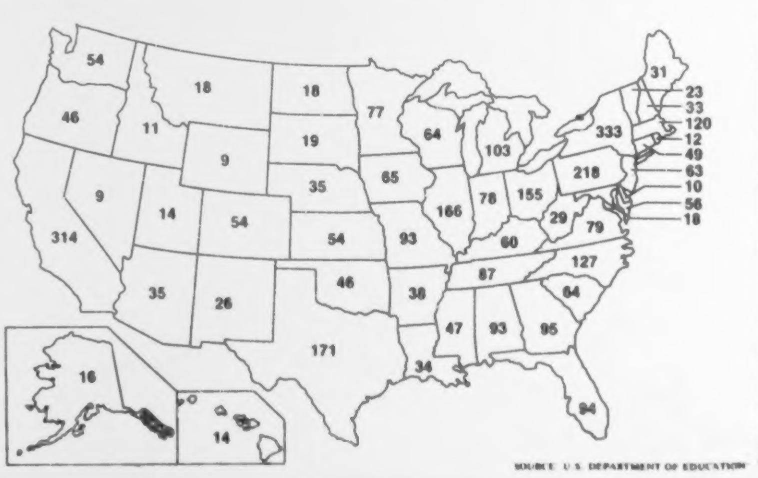
Note: Totals may include data for service schools and outlying areas not shown separately. Sources and additional notes appear on Page 96

High-School Dropout Rates, 1987



SOURCE: U.S. DEPARTMENT OF EDUCATION

Number of Colleges and Universities, 1987-88



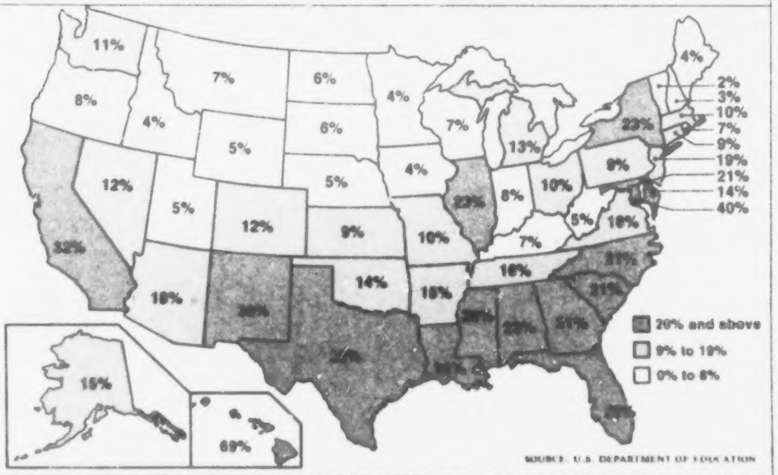
SOURCE: U.S. DEPARTMENT OF EDUCATION

The Nation

- Degrees Awarded
- Enrollment of Minority Students
- Test Scores
- Average Tuition and Fees

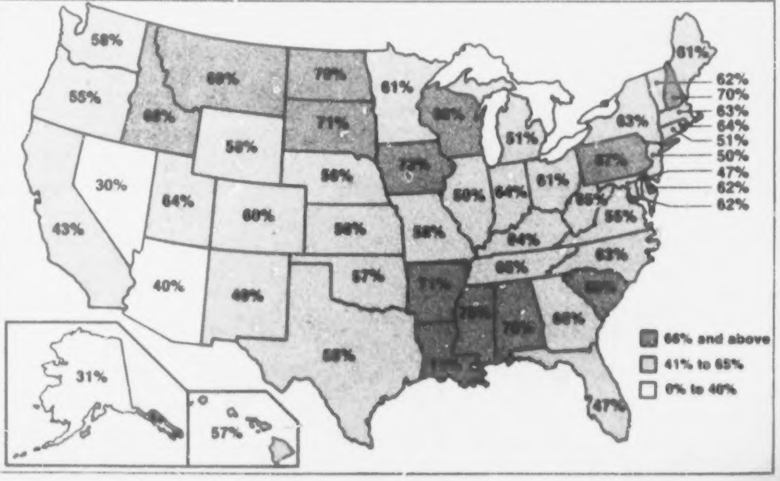
	Degrees awarded, 1986-87					Proportion of all minority students in 1986 who enrolled at each type of institution				Test scores		Average tuition and fees, 1986-87			
	Associate	Bachelor's	Master's	Doctorate	Professional	Public	Private	4-year	2-year	Test taken	1988 score	Public 4-year	Public 2-year	Private 4-year	Private 2-year
Alabama	6,183	15,981	3,946	279	797	80.7%	19.3%	52.7%	47.3%	A.C.T.	18.1	$1,275	$666	$4,316	$2,779
Alaska	742	898	320	7	0	92.7%	7.3%	37.8%	62.2%	A.C.T.	18.4	$975	$824	$3,719	n/a
Arizona	5,911	12,287	4,819	506	352	93.5%	6.5%	30.0%	70.0%	A.C.T.	19.3	$1,136	$358	$2,462	n/a
Arkansas	2,263	7,036	1,883	112	319	86.5%	13.5%	78.3%	21.7%	A.C.T.	17.9	$931	$472	$3,310	$2,082
California	46,483	90,005	31,297	4,147	8,097	92.5%	7.5%	34.7%	65.3%	S.A.T.	908	$1,031	$96	$8,073	$4,655
Colorado	5,756	15,218	4,088	636	853	91.1%	8.9%	48.0%	52.0%	A.C.T.	19.7	$1,482	$623	$7,913	$586
Connecticut	4,842	13,499	5,755	533	947	66.8%	33.2%	61.3%	38.7%	S.A.T.	908	$1,527	$573	$8,534	$7,367
Delaware	1,153	3,246	586	96	245	56.5%	43.5%	72.2%	27.8%	S.A.T.	899	$906	$932	$2,794	n/a
District of Columbia	369	6,711	5,062	475	2,681	38.8%	61.2%	100.0%	0.0%	S.A.T.	839	$634	n/a	$7,128	n/a
Florida	29,524	31,430	9,044	1,109	2,105	78.8%	21.2%	46.1%	53.9%	S.A.T.	890	$1,055	$608	$1,367	n/a
Georgia	6,732	19,103	5,652	654	1,990	63.6%	36.4%	78.4%	21.6%	S.A.T.	848	$1,369	$799	$5,688	$2,626
Hawaii	2,350	3,701	925	145	137	91.0%	9.0%	56.7%	43.3%	S.A.T.	888	$972	$281	$3,020	n/a
Idaho	2,297	3,035	722	47	68	87.0%	13.0%	75.9%	24.1%	A.C.T.	19.3	$1,036	$690	$5,774	$582
Illinois	23,913	47,387	17,075	2,062	4,429	81.6%	18.4%	37.3%	62.7%	A.C.T.	18.9	$1,708	$866	$6,560	$3,614
Indiana	8,681	26,623	6,943	967	1,518	80.9%	19.1%	78.1%	21.9%	S.A.T.	870	$1,627	$1,211	$6,762	$3,800
Iowa	7,236	16,450	2,775	608	1,315	71.4%	28.6%	71.5%	28.5%	A.C.T.	20.3	$1,385	$1,057	$5,847	$3,180
Kansas	5,374	11,714	2,986	389	655	86.8%	13.2%	58.1%	41.9%	A.C.T.	19.1	$1,271	$537	$4,121	$3,461
Kentucky	5,196	11,708	3,261	281	1,144	82.6%	17.4%	69.6%	30.4%	A.C.T.	18.2	$1,152	$540	$3,868	$3,126
Louisiana	2,603	16,221	3,972	301	1,392	85.1%	14.9%	87.9%	12.1%	A.C.T.	17.1	$1,341	$619	$6,812	n/a
Maine	2,030	5,122	503	25	163	25.3%	74.7%	95.8%	4.2%	S.A.T.	896	$1,561	$880	$9,032	$2,067
Maryland	7,129	16,760	5,334	690	968	91.3%	8.7%	59.0%	41.0%	S.A.T.	908	$1,682	$906	$7,274	$4,660
Massachusetts	13,617	41,555	15,077	1,908	3,732	40.5%	59.5%	71.3%	28.7%	S.A.T.	906	$1,388	$750	$8,953	$5,602
Michigan	21,834	38,181	11,534	1,321	2,504	81.9%	18.1%	54.7%	45.3%	A.C.T.	18.8	$1,877	$917	$5,093	$3,648
Minnesota	7,654	20,667	3,607	529	1,529	80.4%	19.6%	73.3%	26.7%	A.C.T.	19.9	$1,814	$1,229	$6,843	$1,908
Mississippi	4,332	9,173	2,037	272	461	88.3%	11.7%	58.6%	41.4%	A.C.T.	16.2	$1,603	$489	$3,890	$1,733
Missouri	6,545	23,541	7,670	545	2,287	67.9%	32.1%	65.6%	34.4%	A.C.T.	19.1	$1,277	$524	$5,474	$3,788
Montana	734	4,140	765	49	74	57.9%	42.1%	53.9%	46.1%	A.C.T.	19.9	$1,205	$423	$3,867	$953
Nebraska	2,918	8,410	1,609	215	752	77.2%	22.8%	63.0%	37.0%	A.C.T.	19.8	$1,292	$740	$5,090	$3,180
Nevada	884	1,929	419	32	42	99.8%	0.2%	41.2%	58.8%	A.C.T.	19.0	$988	$573	$3,100	n/a
New Hampshire	2,372	6,770	1,649	78	173	24.3%	75.7%	92.3%	7.7%	S.A.T.	933	$2,190	$1,514	$8,401	$2,710
New Jersey	9,534	23,328	6,454	670	1,753	84.8%	15.2%	59.0%	41.0%	S.A.T.	893	$1,861	$763	$8,221	$1,200
New Mexico	1,766	4,548	1,732	206	170	97.6%	2.4%	52.0%	48.0%	A.C.T.	18.0	$915	$407	$3,649	n/a
New York	47,956	86,651	32,890	3,366	6,962	66.9%	33.1%	70.6%	29.4%	S.A.T.	889	$1,431	$1,340	$7,364	$4,795
North Carolina	10,659	24,919	5,678	788	1,620	83.0%	17.0%	57.8%	42.2%	S.A.T.	841	$818	$216	$5,597	$3,635
North Dakota	1,980	4,209	587	76	117	87.6%	12.4%	48.4%	51.6%	A.C.T.	18.7	$1,198	$1,074	$4,162	n/a
Ohio	17,850	43,983	12,185	1,612	3,341	74.2%	25.8%	66.5%	33.5%	A.C.T.	19.3	$1,982	$1,181	$6,176	$3,380
Oklahoma	5,338	13,545	3,935	342	999	88.7%	11.3%	62.2%	37.8%	A.C.T.	18.0	$757	$456	$3,662	$2,262
Oregon	4,673	10,922	2,784	349	899	87.2%	12.8%	55.8%	44.2%	S.A.T.	923	$1,296	$484	$7,122	n/a
Pennsylvania	18,586	57,158	13,501	1,802	3,730	64.2%	35.8%	63.6%	36.4%	S.A.T.	886	$2,496	$1,626	$7,140	$4,284
Rhode Island	3,822	7,737	1,720	212	78	49.2%	50.8%	75.6%	24.4%	S.A.T.	900	$1,845	$844	$8,187	n/a
South Carolina	4,766	12,559	3,269	266	738	75.5%	24.5%	60.2%	39.8%	S.A.T.	838	$1,733	$645	$4,534	$2,714
South Dakota	793	3,738	719	65	140	76.9%	23.1%	96.3%	3.7%	A.C.T.	19.8	$1,409	n/a	$5,202	$3,920
Tennessee	5,568	17,328	4,000	576	1,344	72.3%	27.7%	66.7%	33.3%	A.C.T.	18.0	$1,133	$660	$5,075	$2,323
Texas	20,816	57,438	17,174	2,079	4,456	92.2%	7.8%	53.4%	46.6%	S.A.T.	879	$885	$300	$5,510	$2,184
Utah	3,151	11,085	2,403	361	365	84.7%	15.3%	61.1%	38.9%	A.C.T.	18.9	$1,159	$884	$1,498	n/a
Vermont	1,128	4,080	839	41	193	47.2%	52.8%	91.6%	8.4%	S.A.T.	909	$2,942	$1,966	$6,393	$4,858
Virginia	7,037	24,010	5,589	693	1,643	82.3%	17.7%	62.2%	37.8%	S.A.T.	902	$2,070	$775	$5,724	$4,644
Washington	12,278	17,767	4,066	599	901	90.4%	9.6%	41.5%	58.5%	S.A.T.	942	$1,339	$654	$6,837	n/a
West Virginia	2,563	7,518	1,751	110	329	86.3%	13.7%	87.6%	12.4%	A.C.T.	17.6	$1,003	$517	$6,164	$1,311
Wisconsin	8,723	25,322	5,393	795	1,030	82.6%	17.4%	55.2%	44.8%	A.C.T.	20.2	$1,271	$887	$6,055	n/a
Wyoming	1,309	1,625	345	68	59	97.2%	2.8%	29.2%	70.8%	A.C.T.	19.5	$778	$516	n/a	n/a
U.S. total	**437,137**	**991,339**	**289,557**	**34,120**	**72,750**	**82.3%**	**17.7%**	**53.3%**	**46.7%**	**A.C.T./S.A.T.**	**18.8/904**	**$1,414**	**$560**	**$6,658**	**$3,684**

Proportion of College Students Who Are Minority-Group Members, Fall 1986



SOURCE: U.S. DEPARTMENT OF EDUCATION

Proportion of College Students Who Are Enrolled Full-Time, Fall 1987

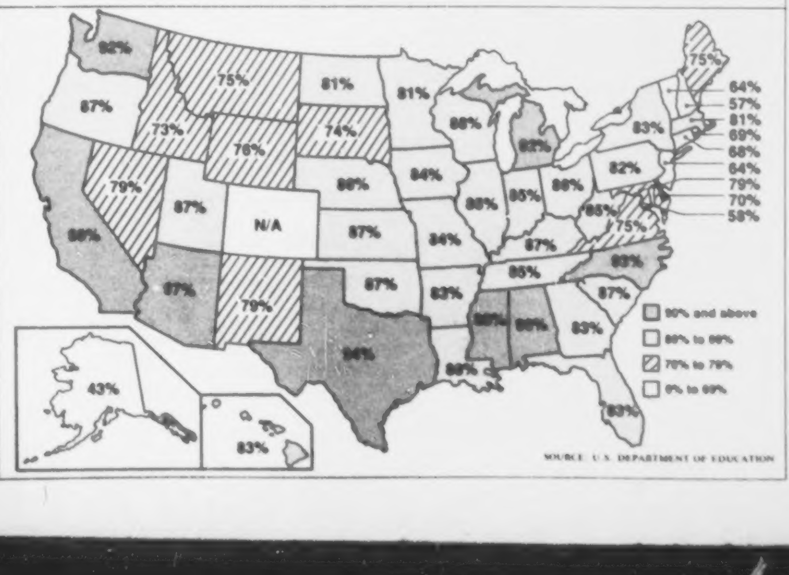


- Expenditures
- State Appropriations
- State Spending on Student Aid
- Research Spending by Universities
- Federal Spending on Selected Programs
- Federal Funds for College-and-University-Based Research

	Expenditures, 1985-86		State appropriations 1988-89	State spending on student aid, 1988-89	Research spending by universities fiscal 1987	Federal spending on selected programs, fiscal 1988			Federal funds for college-and-university-based research, fiscal 1987
	Public institutions	Private institutions				Vocational education	GI Bill	Pell grants	
Alabama	$1,324,774,000	$186,596,000	$775,343,000	$11,239,000	$152,925,000	$35,273,000	$23,321,000	$51,740,000	$100,633,000
Alaska	$224,042,000	$10,171,000	$164,733,000	$230,000	$30,192,000	$5,694,000	$2,415,000	$2,693,000	$15,473,000
Arizona	$1,017,203,000	$52,887,000	$544,560,000	$3,526,000	$181,263,000	$8,465,000	$16,856,000	$61,381,000	$80,485,000
Arkansas	$528,831,000	$72,321,000	$286,399,000	$4,744,000	$35,529,000	$12,598,000	$8,700,000	$34,498,000	$15,487,000
California	$8,515,440,000	$3,641,630,000	$5,011,510,000	$144,214,000	$1,551,801,000	$61,517,000	$90,292,000	$243,731,000	$1,056,860,000
Colorado	$1,057,558,000	$160,193,000	$475,181,000	$19,221,000	$185,699,000	$16,210,000	$20,271,000	$54,379,000	$129,450,000
Connecticut	$562,696,000	$836,949,000	$467,385,000	$30,682,000	$230,790,000	$20,655,000	$4,613,000	$27,910,000	$174,433,000
Delaware	$229,377,000	$15,855,000	$107,516,000	$1,383,000	$31,681,000	$6,889,000	$1,401,000	$26,578,000	$12,067,000
District of Columbia	$88,462,000	$1,307,377,000	n/a	$1,075,000	$85,470,000	$10,551,000	$989,000	$19,835,000	$61,057,000
Florida	$1,782,180,000	$723,270,000	$1,474,345,000	$49,171,000	$252,303,000	$27,682,000	$42,926,000	$167,042,000	$148,867,000
Georgia	$1,255,964,000	$696,734,000	$812,299,000	$20,710,000	$324,160,000	$27,834,000	$24,121,000	$66,558,000	$144,144,000
Hawaii	$312,248,000	$20,964,000	$274,233,000	$598,000	$57,345,000	$8,828,000	$5,644,000	$6,071,000	$39,558,000
Idaho	$238,438,000	$49,768,000	$144,987,000	$624,000	$24,779,000	$8,613,000	$4,532,000	$19,375,000	$7,153,000
Illinois	$2,571,409,000	$2,722,294,000	$1,399,444,000	$159,436,000	$498,221,000	$60,485,000	$22,512,000	$173,249,000	$297,368,000
Indiana	$1,602,203,000	$530,163,000	$755,614,000	$52,062,000	$188,086,000	$21,676,000	$13,341,000	$86,243,000	$111,289,000
Iowa	$1,092,542,000	$353,753,000	$478,991,000	$52,916,000	$157,482,000	$18,684,000	$7,790,000	$64,501,000	$81,802,000
Kansas	$848,602,000	$105,193,000	$382,326,000	$6,031,000	$93,931,000	$14,386,000	$9,833,000	$50,266,000	$35,863,000
Kentucky	$898,718,000	$194,873,000	$518,361,000	$13,190,000	$78,008,000	$45,944,000	$11,080,000	$70,319,000	$30,801,000
Louisiana	$1,039,177,000	$353,433,000	$483,034,000	$9,188,000	$148,563,000	$15,983,000	$14,809,000	$115,983,000	$59,799,000
Maine	$216,737,000	$133,778,000	$162,432,000	$1,411,000	$16,952,000	$9,574,000	$3,829,000	$12,098,000	$8,613,000
Maryland	$1,064,430,000	$901,948,000	$695,261,000	$17,873,000	$709,985,000	$30,599,000	$10,658,000	$44,701,000	$460,057,000
Massachusetts	$980,585,000	$3,544,867,000	$868,426,000	$92,819,000	$719,072,000	$37,062,000	$9,857,000	$59,738,000	$536,122,000
Michigan	$2,946,336,000	$447,436,000	$1,338,033,000	$74,409,000	$396,786,000	$50,052,000	$19,607,000	$143,382,000	$213,721,000
Minnesota	$1,324,691,000	$521,441,000	$861,462,000	$54,640,000	$222,381,000	$28,869,000	$14,111,000	$91,425,000	$121,588,000
Mississippi	$706,380,000	$64,054,000	$425,751,000	$2,241,000	$57,622,000	$19,260,000	$7,766,000	$62,093,000	$32,005,000
Missouri	$999,869,000	$911,951,000	$550,609,000	$14,595,000	$207,020,000	$29,684,000	$16,634,000	$93,112,000	$129,563,000
Montana	$182,102,000	$22,349,000	$105,277,000	$420,000	$29,515,000	$5,855,000	$3,454,000	$19,020,000	$8,866,000
Nebraska	$537,858,000	$161,066,000	$253,431,000	$1,793,000	$71,730,000	$5,922,000	$7,776,000	$34,588,000	$28,564,000
Nevada	$180,107,000	$2,448,000	$121,249,000	$400,000	$28,070,000	$5,185,000	$3,916,000	$11,877,000	$14,955,000
New Hampshire	$183,959,000	$264,440,000	$72,454,000	$972,000	$47,790,000	$6,187,000	$2,863,000	$5,851,000	$34,653,000
New Jersey	$1,406,490,000	$714,733,000	$1,129,452,000	$85,946,000	$215,580,000	$39,988,000	$7,720,000	$64,168,000	$97,865,000
New Mexico	$456,600,000	$16,500,000	$268,800,000	$8,259,000	$127,714,000	$13,810,000	$8,488,000	$26,327,000	$55,138,000
New York	$3,802,602,000	$5,594,159,000	$3,110,021,000	$424,490,000	$1,130,142,000	$67,155,000	$21,268,000	$393,228,000	$752,825,000
North Carolina	$1,799,173,000	$837,291,000	$1,329,606,000	$52,123,000	$313,819,000	$41,672,000	$25,864,000	$67,295,000	$228,176,000
North Dakota	$288,214,000	$18,853,000	$118,072,000	$1,118,000	$38,984,000	$6,149,000	$3,741,000	$20,822,000	$8,194,000
Ohio	$2,718,408,000	$980,801,000	$1,320,460,000	$72,862,000	$328,772,000	$64,134,000	$26,597,000	$188,488,000	$197,721,000
Oklahoma	$844,829,000	$178,905,000	$415,191,000	$18,489,000	$99,116,000	$21,311,000	$16,766,000	$68,125,000	$32,570,000
Oregon	$880,696,000	$171,604,000	$361,189,000	$12,181,000	$132,255,000	$13,541,000	$10,941,000	$45,111,000	$84,138,000
Pennsylvania	$2,392,145,000	$3,169,219,000	$1,268,759,000	$120,998,000	$604,832,000	$68,945,000	$19,292,000	$185,254,000	$417,620,000
Rhode Island	$213,253,000	$315,651,000	$138,802,000	$9,250,000	$65,516,000	$5,534,000	$2,521,000	$11,237,000	$40,731,000
South Carolina	$951,848,000	$196,271,000	$576,598,000	$20,096,000	$95,811,000	$28,147,000	$17,294,000	$47,309,000	$33,516,000
South Dakota	$149,092,000	$51,675,000	$77,369,000	$596,000	$11,513,000	$3,768,000	$3,295,000	$23,703,000	$4,840,000
Tennessee	$1,081,052,000	$684,948,000	$673,881,000	$12,540,000	$144,144,000	$22,839,000	$15,271,000	$70,015,000	$107,518,000
Texas	$4,375,082,000	$993,824,000	$2,245,958,000	$104,235,000	$810,993,000	$59,956,000	$66,281,000	$258,262,000	$378,266,000
Utah	$669,714,000	$194,649,000	$259,615,000	$9,643,000	$120,878,000	$10,014,000	$6,491,000	$45,124,000	$86,950,000
Vermont	$188,112,000	$150,689,000	$53,855,000	$9,784,000	$31,547,000	$3,892,000	$860,000	$6,562,000	$24,108,000
Virginia	$1,825,156,000	$387,455,000	$1,033,096,000	$23,898,000	$206,621,000	$39,089,000	$28,119,000	$57,948,000	$118,162,000
Washington	$1,399,780,000	$227,211,000	$719,437,000	$13,585,000	$235,927,000	$20,130,000	$29,337,000	$69,141,000	$183,206,000
West Virginia	$376,293,000	$73,716,000	$252,618,000	$10,554,000	$26,704,000	$16,762,000	$3,885,000	$27,695,000	$11,901,000
Wisconsin	$1,754,395,000	$373,533,000	$738,670,000	$38,061,000	$303,188,000	$30,277,000	$12,200,000	$80,261,000	$160,074,000
Wyoming	$203,307,000	n/a	$114,188,000	$250,000	$17,316,000	$2,979,000	$2,192,000	$9,494,000	$9,444,000
U.S. total	**$63,193,853,000**	**$34,341,889,000**	**$36,216,283,000**	**$1,919,848,000**	**$11,930,997,000**	**$1,261,076,000**	**$759,254,000**	**$3,901,788,000**	**$7,240,090,000**

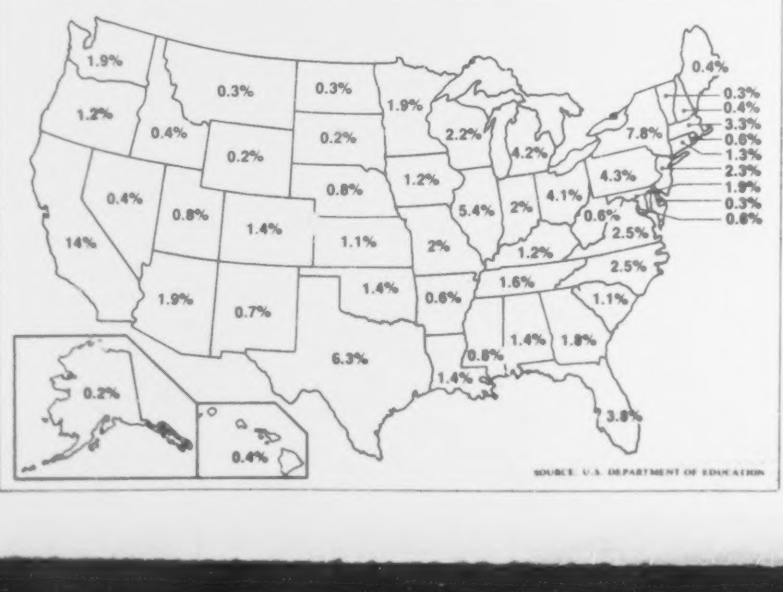
Note: Totals may include data for service schools and outlying areas not shown separately. Sources and additional notes appear on Page 96

Proportion of First-Time College Students Enrolled on Campuses in Their Home States, Fall 1986



SOURCE: U.S. DEPARTMENT OF EDUCATION

States' Share of Total U.S. College Enrollment, Fall 1987



SOURCE: U.S. DEPARTMENT OF EDUCATION

The Nation

■ 9 Issues Affecting Higher Education: a Roll Call of the States

9 Issues Affecting Higher Education: a Roll Call of the States

Issue 1. Open-Meeting Laws in Presidential Searches. These states require that searches for presidents of public colleges and universities be subject to open-meeting laws.

Issue 2. Tax-Exempt Bonds for College Savings. These states have programs to allow families to purchase tax-exempt bonds for college savings.

Issue 3. Tests of Competence in English Language for Teaching Assistants. These states require public colleges and universities to test teaching assistants for competence in English.

Issue 4. Prepaid-Tuition Plans. These states offer prepaid-tuition plans, which allow parents to pay a set sum of money, years in advance, for their children's education.

Issue 5. Restrictions or Taxes on Business Activities of Colleges. These states impose restrictions or taxes on the business activities of colleges and universities (or, in some instances, all non-profit groups).

Issue 6. Release of Pound Animals for Biomedical Research. These states prohibit the release of pound animals to laboratories for use in biomedical research.

Issue 7. Alternative Certification for Schoolteachers. These states allow college graduates who have not completed an education major to become public-school teachers through an alternative-certification program.

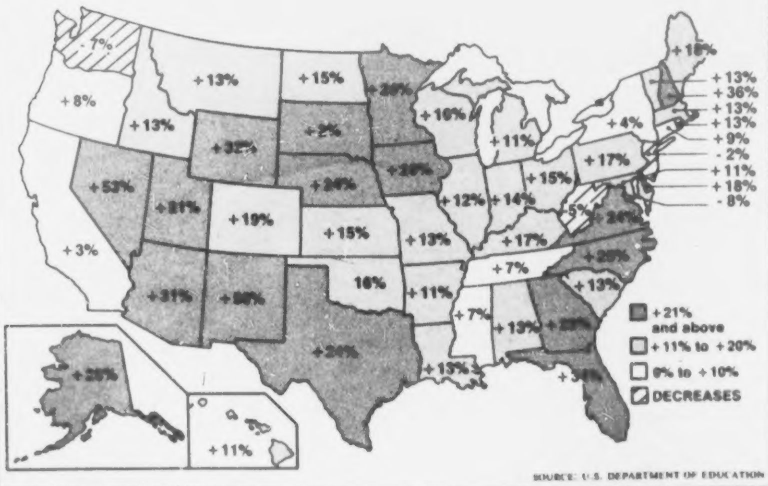
Issue 8. Non-Education Majors for High-School Teachers. These states require prospective secondary-school teachers to major in a subject other than education.

Issue 9. Requirements to Assess What Students Learn. These states require public colleges and universities to set up programs to assess what students learn in college.

	Issue 1	Issue 2	Issue 3	Issue 4	Issue 5	Issue 6	Issue 7	Issue 8	Issue 9
Alabama				★			★		★
Alaska	★								
Arizona			★		★		★		
Arkansas	★						★	★	★
California							★	★	
Colorado		★			★			★	★
Connecticut		★				★	★		
Delaware		★					★	★	
Florida	★		★	★			★	★	★
Georgia	★						★		
Hawaii						★	★	★	
Idaho			★		★				★
Illinois		★	★		★				
Indiana				★					
Iowa		★							
Kansas		★	★						
Kentucky		★						★	
Louisiana	★		★		★		★		
Maine									
Maryland						★			★
Massachusetts	★					★	★	★	
Michigan	★			★				★	
Minnesota	★							★	
Mississippi	★						★		★
Missouri		★	★	★	★				
Montana									
Nebraska								★	
Nevada	★								
New Hampshire			★			★	★		
New Jersey						★	★	★	★
New Mexico							★		
New York						★	★	★	
North Carolina		★					★	★	
North Dakota	★	★	★						
Ohio		★	★	★					
Oklahoma	★		★				★	★	
Oregon	★	★							
Pennsylvania							★		
Rhode Island		★				★		★	
South Carolina							★		★
South Dakota							★		★
Tennessee	★	★	★						★
Texas	★	★	★				★		★
Utah					★			★	★
Vermont						★	★	★	
Virginia		★					★	★	★
Washington		★			★			★	★
West Virginia		★		★			★		★
Wisconsin		★							
Wyoming	★			★					

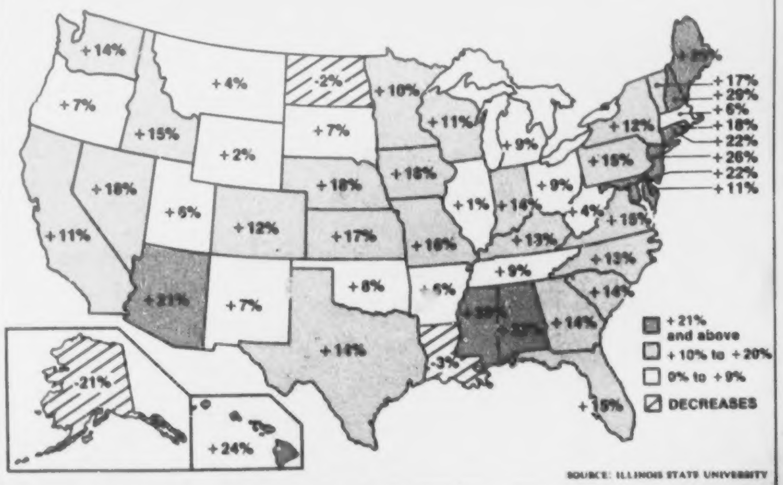
A STAR INDICATES AN ACTION EITHER BY A STATE LEGISLATURE OR BY A STATEWIDE COORDINATING BOARD OR GOVERNING BOARD, AS OF AUGUST 1, 1989

Percentage Change in College Enrollment: 1977 to 1987



SOURCE: U.S. DEPARTMENT OF EDUCATION

Percentage Change in State Appropriations for Higher Education: 1986-87 to 1988-89



SOURCE: ILLINOIS STATE UNIVERSITY

The Nation

STUDENTS

- Average ACT Scores by Sex and Racial and Ethnic Group
- Average SAT Scores by Sex and Racial and Ethnic Group
- College and University Enrollment
- Financial Aid to Undergraduates

Average ACT Scores by Sex and Racial and Ethnic Group, 1988

	English		Mathematics		Social studies		Natural sciences		Composite	
	1988	1-year change	1988	1-year change	1988	1-year change	1988	1-year change	1988	1-year change
Men	18.0	+0.1	18.4	0.2	18.4	0.0	22.8	0.0	19.6	+0.1
Women	19.0	+0.1	16.1	0.0	16.6	0.1	20.2	+0.1	18.1	0.0
American Indian	14.7	+0.1	12.8	+0.3	13.3	+0.1	18.1	+0.3	14.9	+0.3
Asian	18.4	+0.2	21.0	+0.1	17.7	0.0	22.1	+0.1	19.9	+0.1
Black	14.5	+0.1	11.3	+0.3	12.2	+0.1	15.9	+0.2	13.6	+0.2
Mexican-American	15.9	+0.3	14.0	+0.3	14.1	+0.2	18.2	+0.3	15.7	+0.3
Other Hispanic	16.9	+0.2	15.8	+0.3	15.8	+0.3	19.3	0.0	17.1	+0.2
White	19.2	+0.1	18.0	0.0	18.3	0.0	22.3	+0.1	19.6	0.0
All	18.5	+0.1	17.2	0.0	17.4	0.1	21.4	0.0	18.8	+0.1

Note: The ACT Assessment is scored on a scale from 1 to 36.

SOURCE: AMERICAN COLLEGE TESTING PROGRAM

Average SAT Scores by Sex and Racial and Ethnic Group, 1988

	Verbal section		Mathematical section	
	1988	1-year change	1988	1-year change
Men	435	0	498	2
Women	422	- 3	455	+ 2
American Indian	393	0	435	+ 3
Asian	408	+ 3	522	+ 1
Black	353	+ 2	384	+ 7
Mexican-American	382	+ 3	428	+ 4
Puerto Rican	355	- 5	402	+ 2
Other Hispanic	387	0	433	+ 1
White	445	- 2	490	+ 1
Other	410	+ 5	460	+ 5
All	428	- 2	476	0

Note: Each section of the Scholastic Aptitude Test is scored on a scale from 200 to 800.

SOURCE: THE COLLEGE BOARD

Financial Aid to Undergraduates, Fall 1986

	Proportion of students receiving financial assistance, by source			Type of assistance		
By type of institution	Total	Federal	Other	Grants	Loans	Work-study
Public						
Doctoral	46.8%	35.5%	28.5%	36.4%	27.6%	5.8%
Other 4-year	47.3	38.4	30.0	38.1	24.9	8.1
2-year	28.5	19.9	18.1	25.4	7.8	2.4
Less-than-2-year	51.8	41.9	22.9	46.1	19.6	3.4
All	38.0	28.5	23.7	31.5	17.3	4.6
Private, not-for-profit						
Doctoral	61.8	45.7	50.8	52.2	39.5	13.0
Other 4-year	67.9	50.1	57.7	60.1	42.1	16.4
2-year	63.9	47.9	44.7	53.6	35.7	5.7
Less-than-2-year	66.2	59.4	35.5	55.5	40.4	5.0
All	65.3	48.4	54.1	56.7	40.7	14.3
Private, for-profit						
2-year and above	82.7	79.2	24.2	54.9	69.3	1.2
Less-than-2-year	84.8	81.4	13.0	63.5	71.5	0.5
All	84.0	80.6	17.2	60.3	70.7	0.8
By student characteristics						
Sex						
Men	44.5%	34.1%	27.8%	36.5%	23.9%	5.6%
Women	46.3	35.6	29.7	38.6	24.9	6.6
Racial and ethnic group						
American Indian	48.9	40.3	28.7	41.2	19.7	6.8
Asian	40.5	33.3	28.5	36.2	18.4	7.6
Black, non-Hispanic	63.8	55.7	33.2	56.6	35.0	9.8
Hispanic	47.8	40.9	27.2	41.1	24.0	5.8
White, non-Hispanic	43.3	32.0	28.4	35.1	23.6	5.6
Age						
23 or younger	50.0	39.0	33.5	41.2	28.7	8.4
24 to 29	42.8	34.2	21.9	34.4	22.5	3.6
30 and older	35.4	24.8	21.7	30.6	14.4	2.0
Attendance status						
Full-time	58.3	47.4	37.3	48.2	34.2	9.2
Part-time	24.4	14.4	15.0	20.3	8.4	1.1
All	45.5%	34.9%	28.8%	37.6%	24.4%	6.1%

Note: Figures are based on a survey of 59,886 students enrolled at 1,074 colleges, universities, and proprietary institutions in the fall of 1986. Details may add up to more than the total because some students received multiple types and sources of aid.

The total includes students who reported that they received aid but did not specify its source.

SOURCE: U.S. DEPARTMENT OF EDUCATION

College and University Enrollment, Fall 1987

	Undergraduate			First-professional			Graduate			All levels		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Full-time students												
Under 18	1.5%	2.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	1.8%	1.6%
18 to 19	34.4	37.6	36.1	0.1	0.1	0.1	0.1	0.1	0.1	30.2	34.3	32.2
20 to 21	29.8	29.2	29.5	2.6	3.6	3.0	1.1	1.3	1.2	26.3	26.8	26.5
22 to 24	18.7	13.5	16.0	40.0	40.2	40.1	22.0	24.0	22.9	19.8	14.8	17.3
25 to 29	7.8	6.5	7.2	37.6	32.4	35.7	36.8	30.3	33.9	11.4	8.7	10.1
30 to 34	3.4	4.3	3.8	10.9	11.5	11.1	19.7	16.5	18.3	5.0	5.2	5.1
35 to 39	1.7	2.9	2.3	4.5	5.9	5.0	10.3	11.7	10.9	2.5	3.5	3.0
40 to 49	1.3	2.4	1.8	2.1	3.9	2.8	6.0	11.3	8.3	1.7	3.0	2.4
50 to 64	0.3	0.5	0.4	0.4	0.7	0.5	1.3	2.6	1.9	0.4	0.7	0.5
65 and over	0.1	0.1	0.1	0.1	0.1	0.1	0.7	0.2	0.5	0.2	0.1	0.1
Age unknown	1.0	1.0	1.0	1.6	1.7	1.7	2.1	1.9	2.0	1.1	1.1	1.1
Number of full-time students	3,163,754	3,299,312	6,463,066	153,661	88,143	241,804	293,503	233,133	526,636	3,610,918	3,620,588	7,231,506
Part-time students												
Under 18	2.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	1.7%	1.7%	1.7%
18 to 19	8.7	7.5	8.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	6.2	6.6
20 to 21	11.5	9.3	10.2	0.4	0.3	0.4	0.3	0.3	0.3	9.5	7.8	8.5
22 to 24	17.1	13.6	15.1	10.5	10.0	10.3	8.9	8.6	8.7	15.6	12.8	14.0
25 to 29	20.6	17.6	18.9	35.8	30.4	33.7	28.9	23.3	25.7	22.2	18.6	20.1
30 to 34	14.6	14.7	14.7	24.3	22.3	23.6	23.4	18.7	20.7	16.2	15.4	15.7
35 to 39	9.3	12.0	10.9	14.6	16.0	15.1	16.7	18.0	17.5	10.6	13.0	12.0
40 to 49	8.8	13.7	11.7	10.1	14.7	11.9	14.2	20.5	17.8	9.7	14.8	12.7
50 to 64	3.7	5.3	4.6	2.6	3.8	3.1	3.3	5.4	4.5	3.6	5.3	4.6
65 and over	1.6	2.1	1.9	0.3	0.3	0.3	0.6	0.5	0.5	1.4	1.9	1.7
Age unknown	2.1	2.1	2.1	1.4	2.1	1.7	3.6	4.5	4.1	2.4	2.5	2.4
Number of part-time students	1,904,930	2,679,906	4,584,836	16,472	10,191	26,663	399,811	525,491	925,302	2,321,213	3,215,588	5,536,801
All students												
Under 18	1.7%	2.0%	1.9%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	1.5%	1.8%	1.6%
18 to 19	24.7	24.1	24.4	0.1	0.1	0.1	0.0	0.0	0.0	21.1	21.1	21.1
20 to 21	22.9	20.3	21.5	2.4	3.2	2.7	0.6	0.7	0.6	19.7	17.9	18.7
22 to 24	18.1	13.5	15.6	37.1	37.1	37.1	14.4	13.4	13.9	18.2	13.9	15.9
25 to 29	12.6	11.5	12.0	37.4	32.2	35.5	32.2	25.5	28.7	15.6	13.4	14.4
30 to 34	7.6	8.9	8.3	12.2	12.6	12.3	21.8	18.0	19.8	9.4	10.0	9.7
35 to 39	4.6	7.0	5.9	5.5	6.9	6.0	14.0	16.1	15.1	5.7	8.0	6.9
40 to 49	4.1	7.4	5.9	2.9	5.0	3.7	10.7	17.7	14.3	4.9	8.5	6.8
50 to 64	1.6	2.6	2.2	0.7	1.0	0.8	2.5	4.6	3.6	1.7	2.8	2.3
65 and over	0.7	1.0	0.9	0.1	0.1	0.1	0.6	0.4	0.5	0.6	0.9	0.8
Age unknown	1.4	1.5	1.5	1.6	1.8	1.7	3.0	3.7	3.3	1.6	1.7	1.7
Total number of students	5,068,684	5,979,218	11,047,902	170,133	98,334	268,467	693,314	758,624	1,451,938	5,932,131	6,836,176	12,768,307

SOURCE: U.S. DEPARTMENT OF EDUCATION

The Nation
STUDENTS

- Earned Degrees Conferred
- Characteristics of Recipients of Doctorates

Earned Degrees Conferred, 1986-87

	Bachelor's degrees			Master's degrees			Doctor's degrees		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Agriculture and natural resources	10,314	4,677	14,991	2,461	1,062	3,523	871	178	1,049
Architecture and environmental design	5,590	3,332	8,922	2,073	1,069	3,142	66	26	92
Area and ethnic studies	1,278	2,062	3,340	452	399	851	73	59	132
Business and management	128,958	112,198	241,156	45,211	22,285	67,496	839	259	1,098
Communications, communications technologies	18,155	27,253	45,408	1,606	2,331	3,937	158	117	275
Computer and information sciences	25,929	13,735	39,664	5,995	2,496	8,491	322	52	374
Education	20,770	66,345	87,115	19,642	55,859	75,501	3,117	3,792	6,909
Engineering, engineering technologies	80,347	12,727	93,074	19,841	2,852	22,693	3,557	263	3,820
Foreign languages	2,791	7,393	10,184	517	1,229	1,746	184	257	441
Health sciences	9,177	54,029	63,206	3,887	14,539	18,426	564	649	1,213
Home economics	1,116	13,826	14,942	256	1,814	2,070	65	232	297
Law	370	808	1,178	1,423	520	1,943	79	41	120
Letters	12,684	24,449	37,133	2,140	3,983	6,123	515	666	1,181
Liberal/general studies	9,312	12,053	21,365	459	667	1,126	15	14	29
Library and archival sciences	20	119	139	796	3,019	3,815	18	39	57
Life sciences	19,641	18,473	38,114	2,539	2,415	4,954	2,226	1,197	3,423
Mathematics	8,834	7,655	16,489	2,024	1,297	3,321	599	126	725
Military sciences	357	26	383	81	2	83	0	0	0
Multi/interdisciplinary studies	7,597	8,805	16,402	1,764	1,277	3,041	174	102	276
Parks and recreation	1,636	2,471	4,107	213	263	476	20	12	32
Philosophy and religion	3,840	2,136	5,976	698	410	1,108	329	93	422
Physical sciences	14,302	5,672	19,974	4,243	1,409	5,652	3,038	634	3,672
Protective services	7,974	4,956	12,930	719	300	1,019	15	3	18
Psychology	13,332	29,536	42,868	2,856	5,348	8,204	1,458	1,665	3,123
Public affairs	4,537	9,624	14,161	6,191	10,841	17,032	216	182	398
Social sciences	53,879	42,306	96,185	6,294	4,103	10,397	2,026	890	2,916
Theology	4,331	1,379	5,710	3,225	1,656	4,881	1,108	128	1,236
Visual and performing arts	13,783	22,440	36,223	3,757	4,749	8,506	447	345	792
All fields	480,854	510,485	991,339	141,363	148,194	289,557	22,099	12,021	34,120

	Professional degrees				Professional degrees		
	Men	Women	Total		Men	Women	Total
Chiropractic	1,982	673	2,655	Pharmacy	351	510	861
Dentistry	3,603	1,138	4,741	Podiatry, podiatric medicine	468	122	590
Law	21,643	14,529	36,172	Theological professions	5,794	1,387	7,181
Medicine	10,566	5,054	15,620	Veterinary medicine	1,150	1,080	2,230
Optometry	697	385	1,082				
Osteopathic medicine	1,206	412	1,618	All fields	47,460	25,290	72,750

SOURCE: U.S. DEPARTMENT OF EDUCATION

Characteristics of Recipients of Doctorates, 1987

	Arts and humanities	Business and management	Computer science	Education	Engineering	Life sciences	Mathematics	Physical sciences	Social sciences	Other professional fields[1]	All fields[2]
Doctoral degrees conferred	3,504	980	450	6,447	3,716	5,742	740	3,837	5,718	1,083	32,278
Median age at conferral	35.0	34.3	31.7	39.8	31.0	31.7	30.8	29.8	33.5	37.0	33.6
Median number of years from bachelor's degree to doctorate	12.0	11.3	9.1	16.2	8.1	8.7	7.9	7.1	10.3	13.8	10.4
Median number of years registered as a graduate student	8.4	6.8	6.6	7.9	5.8	6.5	6.3	5.9	7.2	7.7	6.9
Per cent with bachelor's degree in same field as doctorate	58.5%	35.5%	20.2%	37.8%	75.2%	55.6%	73.0%	72.6%	56.4%	23.6%	54.9%
Sex											
Men	55.1%	76.6%	85.6%	44.9%	93.5%	64.8%	83.1%	83.3%	57.2%	58.4%	64.8%
Women	44.9	23.4	14.4	55.1	6.5	35.2	16.9	16.7	42.8	41.6	35.2
Citizenship											
United States	78.0	60.4	54.0	84.9	41.8	73.5	46.6	65.1	76.1	75.4	70.8
Non-U.S., permanent visa	5.0	8.4	7.1	2.7	9.5	4.5	6.9	4.5	4.3	2.7	4.9
Non-U.S., temporary visa	9.3	23.3	31.6	6.5	41.2	16.0	40.7	24.0	11.4	13.2	17.3
Unknown	7.7	8.0	7.3	6.0	7.4	6.1	5.8	6.4	8.3	8.7	7.0
Planned postdoctoral study											
Fellowship	4.1%	1.0%	1.6%	1.4%	5.4%	29.6%	8.1%	20.2%	8.5%	2.2%	10.8%
Research associateship	1.5	1.5	6.9	1.4	12.2	17.2	12.8	29.0	3.9	1.1	9.5
Traineeship	0.3	0.1	1.3	0.6	1.2	1.5	2.2	0.5	1.3	0.5	0.9
Other	1.5	0.4	1.1	0.9	0.5	3.9	0.4	0.6	1.2	0.6	1.4
Planned postdoctoral employment											
Educational institution	65.4	71.4	49.3	63.0	25.1	20.6	48.4	11.3	35.7	53.9	39.8
Industry or business	4.8	9.6	23.6	6.0	32.5	8.4	10.5	22.4	12.4	8.1	13.0
Government	2.2	2.1	2.4	7.9	7.3	6.2	2.4	4.8	9.4	7.1	6.4
Non-profit organization	4.4	0.9	1.1	5.4	1.0	2.2	1.1	0.8	10.8	11.4	4.5
Other or unknown	4.3	1.4	2.4	4.3	2.3	2.2	3.0	1.5	5.6	3.4	3.4
Postdoctoral status unknown	11.5	11.4	10.2	9.0	12.4	8.2	11.1	9.0	11.2	11.7	10.1
Primary postdoctoral activity											
Research and development	7.4%	29.9%	57.4%	5.3%	64.8%	48.9%	38.9%	68.9%	23.0%	8.8%	27.8%
Teaching	73.7	55.1	32.1	36.0	21.2	26.9	50.6	16.9	27.9	51.4	36.9
Administration	5.0	4.6	1.1	36.5	1.8	6.3	1.5	2.5	6.0	13.3	13.4
Professional services	4.6	3.5	4.2	12.5	5.4	8.4	2.9	4.7	34.3	16.7	13.2
Other	3.6	1.7	1.1	1.9	1.5	3.5	1.5	2.1	2.8	3.2	2.4
Unknown	5.7	5.2	4.2	7.8	5.3	6.0	4.7	5.0	6.1	6.5	6.2

[1] Excludes business and management, which is listed separately
[2] Includes degree categories not listed separately

SOURCE: NATIONAL RESEARCH COUNCIL

■ College Enrollment by Racial and Ethnic Group
■ Attitudes and Characteristics of Freshmen

College Enrollment by Racial and Ethnic Group, Selected Years

	1976	1978	1980	1982	1984	1986
American Indian						
All	76,000	78,000	84,000	88,000	84,000	90,000
Men	39,000	37,000	38,000	40,000	38,000	40,000
Women	38,000	41,000	46,000	48,000	46,000	51,000
Public	68,000	68,000	74,000	77,000	72,000	79,000
Private	9,000	9,000	10,000	10,000	11,000	11,000
4-year	35,000	35,000	37,000	39,000	38,000	40,000
2-year	41,000	43,000	47,000	49,000	46,000	51,000
Asian						
All	198,000	235,000	286,000	351,000	390,000	448,000
Men	108,000	126,000	151,000	189,000	210,000	239,000
Women	89,000	109,000	135,000	162,000	180,000	209,000
Public	166,000	195,000	240,000	296,000	323,000	372,000
Private	32,000	40,000	47,000	55,000	67,000	76,000
4-year	119,000	138,000	162,000	193,000	223,000	262,000
2-year	79,000	97,000	124,000	158,000	167,000	186,000
Black						
All	1,033,000	1,054,000	1,107,000	1,101,000	1,076,000	1,081,000
Men	470,000	453,000	464,000	458,000	437,000	436,000
Women	563,000	601,000	643,000	644,000	639,000	645,000
Public	831,000	840,000	876,000	873,000	844,000	855,000
Private	202,000	215,000	231,000	228,000	232,000	226,000
4-year	604,000	612,000	634,000	612,000	617,000	615,000
2-year	429,000	443,000	472,000	489,000	459,000	466,000

Note: Because of rounding, details may not add to totals

	1976	1978	1980	1982	1984	1986
Hispanic						
All	384,000	417,000	472,000	519,000	535,000	624,000
Men	210,000	213,000	232,000	252,000	254,000	292,000
Women	174,000	205,000	240,000	267,000	281,000	332,000
Public	337,000	363,000	406,000	446,000	456,000	539,000
Private	47,000	55,000	66,000	74,000	79,000	84,000
4-year	174,000	190,000	217,000	229,000	246,000	278,000
2-year	210,000	227,000	255,000	291,000	289,000	345,000
White						
All	9,076,000	9,194,000	9,833,000	9,997,000	9,815,000	9,914,000
Men	4,814,000	4,613,000	4,773,000	4,830,000	4,690,000	4,646,000
Women	4,262,000	4,581,000	5,060,000	5,167,000	5,125,000	5,268,000
Public	7,095,000	7,136,000	7,656,000	7,785,000	7,543,000	7,650,000
Private	1,982,000	2,058,000	2,177,000	2,212,000	2,272,000	2,264,000
4-year	5,999,000	6,027,000	6,275,000	6,306,000	6,301,000	6,340,000
2-year	3,077,000	3,167,000	3,558,000	3,692,000	3,514,000	3,575,000
Foreign						
All	219,000	253,000	305,000	331,000	335,000	344,000
Men	154,000	180,000	211,000	230,000	231,000	232,000
Women	65,000	73,000	94,000	101,000	104,000	111,000
Public	145,000	167,000	204,000	219,000	219,000	226,000
Private	73,000	85,000	101,000	113,000	116,000	118,000
4-year	177,000	201,000	241,000	270,000	282,000	291,000
2-year	42,000	52,000	64,000	61,000	53,000	53,000

SOURCE: U.S. DEPARTMENT OF EDUCATION

Attitudes and Characteristics of Freshmen, Fall 1988

	All institutions		
	Men	Women	Total
College selected is student's:			
First choice	67.5%	68.3%	67.9%
Second choice	22.5	23.4	23.0
Third choice	6.3	5.4	5.8
Less than third choice	3.7	3.0	3.3
Number of other college acceptances this year:			
None	15.7	14.5	15.1
One	26.5	29.1	27.9
Two	24.4	24.5	24.5
Three	17.3	17.0	17.1
Four	8.7	8.1	8.4
Five	3.7	3.7	3.7
Six or more	3.7	3.1	3.4
Reasons noted as very important in deciding to go to college:			
Parents' wishes	18.9	19.8	19.4
Could not find job	3.2	3.3	3.3
To get away from home	11.6	10.9	11.2
To be able to get a better job	82.7	82.4	82.5
To gain general education	53.6	65.6	60.1
To improve reading and study skills	35.6	42.7	39.4
Nothing better to do	3.4	2.4	2.9
To become a more cultured person	29.2	40.7	35.4
To be able to make more money	76.5	69.2	72.6
To learn more about things	69.3	77.6	73.8
To prepare for graduate school	46.1	53.1	49.9
Concern about financing college:			
No concern	42.1	32.1	36.7
Some concern	45.9	51.6	49.0
Major concern	11.9	16.3	14.3
Highest degree planned:			
None	1.8	1.8	1.8
Vocational certificate	0.4	0.7	0.6
Associate	3.3	4.5	3.9
Bachelor's	34.0	32.3	33.1
Master's degree	35.8	36.8	36.3
Ph.D. or Ed.D.	12.1	11.4	11.7
M.D., D.O., D.D.S., D.V.M.	5.5	5.9	5.7
LL.B. or J.D.	5.2	4.8	5.0
B.D. or M.Div.	0.5	0.3	0.4
Other	1.5	1.6	1.5
Political views:			
Far left	2.7	2.1	2.3
Liberal	20.5	23.2	22.0
Middle of the road	49.5	57.6	53.9
Conservative	24.8	16.2	20.2
Far right	2.5	0.9	1.6

Note: Because of rounding or multiple responses, figures may add to more than 100 per cent.

	All institutions		
	Men	Women	Total
Agree strongly or somewhat that:			
Government isn't protecting the consumer	61.0%	69.1%	65.4%
Government isn't promoting disarmament	56.9	75.2	66.7
Government isn't controlling pollution	82.3	85.3	83.9
Taxes should be raised to reduce the federal deficit	32.0	24.1	27.8
There is too much concern for the rights of criminals	72.7	66.0	69.1
Military spending should be increased	33.1	20.5	26.3
Nuclear disarmament is attainable	59.5	61.2	60.4
Abortion should be legal	56.8	57.2	57.0
The death penalty should be abolished	19.6	26.0	23.0
It is all right for two people who like each other to have sex even if they've known each other for a very short time	65.1	37.1	50.0
Women's activities should be confined to the home	32.1	20.1	25.6
Couples should live together before marriage	57.3	46.3	51.3
Students might appreciate the value of college more if they had to pay a greater share of the costs	56.2	50.8	53.3
Marijuana should be legalized	22.8	16.4	19.3
Busing to achieve racial balance in schools is all right	52.3	54.9	53.7
Homosexual relations should be prohibited	59.7	39.9	49.0
Colleges should divest of South African investments	51.4	42.1	46.4
The chief benefit of college is that it increases one's earning power	73.9	64.7	69.0
Employers should be allowed to require employees or job applicants to take drug tests	69.8	72.0	71.0
The best way to control AIDS is through widespread, mandatory testing	67.7	67.7	67.7
Just because a man thinks that a woman has "led him on" does not entitle him to have sex with her	75.3	91.0	83.8
Only volunteers should serve in the armed forces	52.7	53.9	53.4
Objectives considered essential or very important:			
Becoming accomplished in a performing art	9.8	11.3	10.6
Becoming an authority in his or her field	73.6	70.6	72.0
Obtaining recognition from colleagues	56.9	53.6	55.1
Influencing the political structure	19.8	14.2	16.8
Influencing social values	32.7	40.7	37.0
Raising a family	66.5	67.3	67.0
Becoming an expert on finance and commerce	32.0	20.8	25.9
Having administrative responsibility	42.9	37.3	39.8
Being very well-off financially	77.8	69.7	73.4
Helping others who are in difficulty	46.3	65.0	56.4
Participating in such organizations as Peace Corps or VISTA	6.3	8.0	7.2
Making a contribution to scientific theory	15.6	8.8	11.9
Writing original works	12.7	13.3	13.0
Creating artistic work	11.9	13.0	12.5
Keeping up to date with political affairs	38.2	29.4	33.4
Being successful in own business	56.8	48.2	52.1
Developing a meaningful philosophy of life	49.4	51.4	50.5
Participating in a community-action program	18.8	24.2	21.7
Promoting racial understanding	29.8	34.2	32.2
Getting married	66.0	68.4	67.3

SOURCE: "THE AMERICAN FRESHMAN: NATIONAL NORMS FOR FALL 1988," BY ALEXANDER W. ASTIN, PUBLISHED BY AMERICAN COUNCIL ON EDUCATION AND UNIVERSITY OF CALIFORNIA AT LOS ANGELES

The Nation

STUDENTS

- Foreign Students' Countries of Origin
- Institutions Enrolling the Most Foreign Students
- Educational Attainment in the U.S.
- Student Financial Aid
- College Enrollment Projections

Foreign Students' Countries of Origin, 1987-88

Rank	Country or territory	Students	Rank	Country or territory	Students
1	Taiwan	26,660	33	Italy	2,200
2	China	25,170	34	Bangladesh	2,170
3	India	21,010	35	South Africa	2,130
4	Republic of Korea	20,520	36	Nicaragua	2,100
5	Malaysia	19,480	37	Egypt	2,090
6	Japan	18,050	38	Trinidad & Tobago	2,050
7	Canada	15,690	39	Sri Lanka	2,030
8	Hong Kong	10,650	40	Kenya	1,990
9	Iran	10,420	41	Panama	1,910
10	Indonesia	9,010	42	Cyprus	1,890
11	Nigeria	8,340	42	Vietnam	1,890
12	United Kingdom	6,600	44	Norway	1,880
13	Pakistan	6,570	45	Ethiopia	1,870
14	Thailand	6,430	46	Syria	1,740
15	Mexico	6,170	47	Bahamas	1,710
16	Lebanon	5,820	48	Argentina	1,650
17	West Germany	5,730	49	Netherlands	1,630
18	Saudi Arabia	5,490	50	Sweden	1,600
19	Jordan	5,140	51	Australia	1,490
20	Singapore	4,870	52	Haiti	1,460
21	Philippines	4,420	53	Cameroon	1,400
22	France	4,310	54	United Arab Emirates	1,380
23	Greece	4,140	55	Honduras	1,250
24	Venezuela	3,790	56	Cuba	1,230
25	Colombia	3,370	57	Ireland	1,170
26	Kuwait	3,160	58	Ecuador	1,110
27	Brazil	2,950	58	Chile	1,110
28	Israel	2,690	58	Ghana	1,110
29	Turkey	2,630	58	El Salvador	1,110
30	Spain	2,500	62	Switzerland	1,040
31	Peru	2,290	63	Pacific Islands Trust Territory	1,030
32	Jamaica	2,280			

Note: Includes only countries with over 1,000 students in U.S. institutions.

SOURCE: INSTITUTE OF INTERNATIONAL EDUCATION

Institutions Enrolling the Most Foreign Students, 1987-88

1	Miami-Dade Community College	5,148
2	University of Southern California	3,767
3	University of Texas at Austin	3,135
4	University of Wisconsin at Madison	2,825
5	University of California at Los Angeles	2,765
6	Ohio State University main campus	2,756
7	Boston University	2,641
8	University of Arizona	2,599
9	University of Minnesota-Twin Cities	2,514
10	Columbia University	2,474
11	University of Illinois at Urbana-Champaign	2,446
11	University of Michigan at Ann Arbor	2,446
13	University of Pennsylvania	2,255
14	University of Maryland at College Park	2,239
15	Southern Illinois University at Carbondale	2,203
16	George Washington University	2,198
17	University of California at Berkeley	2,187
18	Michigan State University	2,148
19	University of Houston-University Park	2,113
19	State University of New York at Buffalo	2,113
21	Northeastern University	2,099
22	New York University	2,072
23	Iowa State University	2,044
24	Harvard University	2,014
25	Stanford University	1,975

SOURCE: INSTITUTE OF INTERNATIONAL EDUCATION

Educational Attainment of the U.S. Population

Highest level reached	Proportion of U.S. adults
Doctorate	0.5%
Professional	1.0
Master's	3.4
Bachelor's	10.6
Associate	3.4
Vocational	1.8
Some college, no degree	17.8
High-school diploma	35.5
No high-school diploma	26.0

Note: The figures are based on a 1984 survey of 19,000 households. They cover the civilian, resident population of adults age 18 and older.

SOURCE: CENSUS BUREAU

Student Financial Aid, 1988-89

Total spending, by source

Federally supported programs	
Generally available aid	
Pell Grants	$4,460,000,000
Supplemental Educational Opportunity Grants	393,000,000
State Student Incentive Grants	73,000,000
College Work-Study	706,000,000
Perkins Loans	859,000,000
Income-Contingent Loans	4,000,000
Stafford Student Loans	9,168,000,000
Supplemental Loans for Students	2,071,000,000
Parent Loans for Undergraduate Students	635,000,000
Subtotal	18,369,000,000
Specially directed aid	
Veterans	743,000,000
Military	372,000,000
Other grants	80,000,000
Other loans	300,000,000
Subtotal	1,494,000,000
Total federal aid	19,863,000,000
State grant programs	1,642,000,000
Institutionally awarded aid	5,156,000,000
Total federal, state, and institutional aid	$26,661,000,000

Number of recipients and amount of aid per recipient

Pell Grants	
Recipients	3,250,000
Aid per recipient	$1,372
Supplemental Educational Opportunity Grants	
Recipients	561,000
Aid per recipient	$701
College Work-Study	
Recipients	765,000
Aid per recipient	$923
Perkins Loans	
Recipients	803,000
Aid per recipient	$1,070
Stafford Student Loans	
Recipients	3,583,000
Aid per recipient	$2,559
Supplemental Loans for Students	
Recipients	807,000
Aid per recipient	$2,567
Parent Loans for Undergraduate Students	
Recipients	203,000
Aid per recipient	$3,133
State Grants and State Student Incentive Grants	
Recipients	1,585,000
Aid per recipient	$1,082

Note: Figures are estimates and include assistance to undergraduate and graduate students.

Several of the "federally supported" aid programs include small amounts of money from sources other than the federal government. For example, College Work-Study includes some contributions by institutions, although most of the funds in the program are federal. Perkins Loans are financed from federal and capital contributions and collections from borrowers.

Federal State Student Incentive Grants are reported under "federally supported" aid and excluded from state awards.

Funds for Stafford Loans, Supplemental Loans for Students, and Parent Loans for Undergraduate Students come mostly from private sources. The federal government subsidizes interest payments and repays defaults. Amounts reported represent loan commitments rather than amounts loaned, but there is not much difference between the two.

Veterans' benefits are payments for postsecondary education and training to veterans and their dependents.

Military aid covers the Armed Forces Health Professions Scholarship program; Reserve Officers' Training Corps programs for the Air Force, Army, and Navy, and higher-education tuition assistance for military personnel on active duty.

Because of rounding, details may not add to totals.

SOURCE: THE COLLEGE BOARD

College Enrollment Projections, 1989 to 1993

	1989	1990	1991	1992	1993
Total enrollment	13,087,000	13,213,000	13,233,000	13,126,000	13,026,000
Men	5,984,000	6,010,000	6,002,000	5,952,000	5,920,000
Women	7,103,000	7,203,000	7,231,000	7,174,000	7,106,000
Public institutions	10,188,000	10,291,000	10,308,000	10,228,000	10,154,000
Private institutions	2,899,000	2,922,000	2,925,000	2,898,000	2,872,000
4-year institutions	8,212,000	8,289,000	8,298,000	8,224,000	8,147,000
2-year institutions	4,875,000	4,924,000	4,935,000	4,902,000	4,879,000
Full-time students	7,377,000	7,428,000	7,378,000	7,274,000	7,179,000
Part-time students	5,710,000	5,785,000	5,855,000	5,852,000	5,847,000
Undergraduate	11,275,000	11,387,000	11,390,000	11,284,000	11,179,000
Graduate	1,533,000	1,545,000	1,561,000	1,560,000	1,564,000
First-professional	279,000	281,000	282,000	282,000	283,000

SOURCE: U.S. DEPARTMENT OF EDUCATION

- Campuses With the Largest Enrollments
- Educational Attainment of 1980 High-School Seniors by 1986
- Freshman National Merit Scholars
- Number of Colleges by Enrollment

Campuses With the Largest Enrollments, Fall 1987

University of Minnesota–Twin Cities	62,223
Ohio State University main campus	53,115
University of Texas at Austin	47,743
Michigan State University	43,960
University of Wisconsin at Madison	43,368
Arizona State University	42,968
Miami Dade Community College	42,663
Community College of the Air Force	40,310
Texas A&M University main campus	39,079
University of Illinois at Urbana-Champaign	38,970
University of Maryland at College Park	38,058
San Diego State University	36,280
Pennsylvania State University main campus	36,271
University of Michigan at Ann Arbor	35,623
University of California at Los Angeles	35,435
California State University at Long Beach	34,926
Northern Virginia Community College	34,884
Purdue University main campus	34,069
University of Florida	33,568
Indiana University at Bloomington	33,421
University of Washington	33,302
Rutgers University main campus	33,157
Northeastern University	33,042
University of Arizona	33,009
Macomb Community College	32,141
University of California at Berkeley	32,055
New York University	31,691
University of Cincinnati main campus	31,233
University of Southern California	30,504
Temple University	30,431
Wayne State University	30,377
University of Iowa	29,995
California State University at Northridge	29,719
Brigham Young University	29,674
University of South Florida	29,069
University of Houston–University Park	28,907
University of Pittsburgh	28,364
Boston University	28,308
University of Massachusetts at Amherst	28,118
Louisiana State University main campus	28,011
San Jose State University	27,549
Houston Community College	27,196
University of Akron main campus	27,069
Iowa State University	26,600
University of Georgia	26,547

SOURCE: U.S. DEPARTMENT OF EDUCATION

Educational Attainment of 1980 High-School Seniors by 1986

	No high-school diploma	High-school diploma	License	Associate degree	Bachelor's degree	Professional graduate degree
Sex						
Men	1.0%	64.0%	10.5%	5.9%	17.6%	0.9%
Women	0.8	59.6	13.3	7.0	18.8	0.6
Racial and ethnic group						
American Indian	—	61.3	18.6	9.3	10.8	—
Asian	—	49.6	12.6	8.7	27.3	1.7
Black, non-Hispanic	1.2	69.4	13.9	5.3	9.9	0.2
Hispanic	1.7	70.2	13.8	7.3	6.8	0.1
White, non-Hispanic	0.8	60.0	11.5	6.6	20.2	0.9
Socioeconomic status						
Low	1.2	74.1	12.3	5.5	6.6	0.2
Low-middle	0.5	66.7	13.6	8.0	11.1	0.2
High-middle	0.1	58.4	12.9	7.7	20.4	0.6
High	—	45.7	8.7	6.3	37.1	2.2
High-school program						
General	0.8	69.7	12.6	6.5	10.2	0.2
Academic	0.1	45.6	8.8	7.2	36.6	1.8
Vocational	0.6	72.8	16.2	6.9	3.6	0.0
Type of high school						
Public	1.0	63.2	12.1	6.6	16.4	0.7
Catholic	—	47.4	11.9	6.4	32.8	1.6
Other private	—	52.3	7.0	3.9	36.7	0.1
Postsecondary education plans						
No plans	1.4	83.5	12.7	2.1	0.2	—
Attend voc/tech school	0.3	72.5	17.7	8.4	1.1	—
Attend college less than 4 years	0.2	65.5	14.4	13.1	6.8	—
Earn bachelor's degree	—	48.3	8.2	6.9	35.8	0.7
Earn advanced degree	0.1	43.5	7.9	4.9	40.6	3.0
1980 enrollment status						
Part-time 2-year public college	0.7	66.4	17.7	8.8	6.5	—
Part-time 4-year public college	2.7	57.1	15.4	1.6	22.6	0.6
Full-time 2-year public college	—	49.5	11.7	20.7	17.6	0.5
Full-time 4-year public college	—	41.7	7.6	4.5	44.9	1.3
Full-time 4-year private college	—	31.1	8.8	5.1	51.9	3.0
Not a student	1.8	78.2	12.8	3.6	3.5	0.2
Total	**0.9%**	**61.8%**	**11.9%**	**6.5%**	**18.2%**	**0.7%**

Note: Figures are based on data from "High School and Beyond," a longitudinal study of more than 10,500 students who were high-school seniors in 1980. They show students' highest level of education achieved by the spring of 1986. Because of rounding, figures may not add to 100 per cent. A dash indicates less than 0.5 per cent. Socioeconomic status was determined by parental education, family income, father's occupation, and household characteristics in 1980.

SOURCE: U.S. DEPARTMENT OF EDUCATION

Colleges With Most Freshman National Merit Scholars, 1988

		Number of scholars	Number sponsored by institution
1	Harvard and Radcliffe Colleges	315	0
2	University of Texas at Austin	218	162
3	Stanford University	202	0
4	Rice University	179	129
5	Princeton University	151	0
6	Yale University	150	0
7	Georgia Institute of Technology	121	93
8	Texas A&M University	113	87
9	University of Florida	109	94
10	University of Chicago	108	67
11	Northwestern University	96	53
12	Carleton College	95	75
13	Michigan State University	90	75
14	Massachusetts Institute of Technology	88	[illegible]
15	University of California at Berkeley	82	4
16	University of California at Los Angeles	80	64
17	Duke University	74	9
18	Brigham Young University	70	40
19	University of Michigan	64	0
20	Brown University	63	0
21	Harvey Mudd College	62	41
22	University of Houston	59	50
23	Washington University (Mo.)	57	39
24	University of Minnesota–Twin Cities	56	43
25	University of Illinois at Urbana-Champaign	55	0
25	Williams College	55	0
27	Dartmouth College	53	0
28	University of Pennsylvania	51	0
29	Cornell University	50	0
30	University of Delaware	47	30
31	Trinity University	45	30
31	University of Oklahoma	45	35
33	Baylor University	42	35
33	Ohio State University	42	34
33	Pennsylvania State University	42	7
36	American University	41	34
36	Florida State University	41	35
36	Miami University	41	33
36	University of Kansas	41	36
40	University of Toledo	40	34
41	Boston University	37	28
41	Oberlin College	37	22
41	Virginia Polytechnic Institute and State University	37	29
44	Emory University	36	20
44	University of Arizona	36	27

Note: The table shows the total number of National Merit Scholarship winners and the number whose scholarships were paid for by the institution, not by the National Merit Scholarship Corporation or other corporate sponsors. The rankings were determined by The Chronicle from an alphabetical listing in the corporation's annual report.

Number of Colleges by Enrollment, Fall 1987

	Universities	Other 4-year institutions	2-year institutions	All institutions
Public institutions				
Under 200	0	1	6	7
200 to 499	0	11	29	40
500 to 999	0	29	102	131
1,000 to 2,499	0	107	308	415
2,500 to 4,999	1	103	215	319
5,000 to 9,999	7	134	175	316
10,000 to 19,999	30	91	99	220
20,000 to 29,999	34	18	21	73
30,000 or more	22	2	4	28
All	94	496	959	1,549
Private institutions				
Under 200	0	283	117	400
200 to 499	0	235	160	395
500 to 999	0	307	86	393
1,000 to 2,499	0	423	40	463
2,500 to 4,999	6	139	3	148
5,000 to 9,999	24	43	1	68
10,000 to 19,999	24	7	2	33
20,000 to 29,999	5	0	0	5
30,000 or more	3	0	0	3
All	62	1,437	409	1,908
All institutions				
Under 200	0	284	123	407
200 to 499	0	246	189	435
500 to 999	0	336	188	524
1,000 to 2,499	0	530	348	878
2,500 to 4,999	7	242	218	467
5,000 to 9,999	31	177	176	384
10,000 to 19,999	54	98	101	253
20,000 to 29,999	39	18	21	78
30,000 or more	25	2	4	31
All	156	1,933	1,368	3,457

Note: Figures exclude approximately 130 institutions that did not report enrollment.

SOURCE: U.S. DEPARTMENT OF EDUCATION

The Nation

FACULTY AND STAFF

- Average Faculty Salaries
- Median Salaries of Chief Executive and Academic Officers
- Employment of Faculty Members
- Median Salaries of Administrators

Average Faculty Salaries, 1988-89

	Public		Private, independent		Church-related		All	
	Salary	1-year increase	Salary	1-year increase	Salary	1-year increase	Salary	1-year increase
Doctoral institutions								
Professor	$54,240	5.9%	$64,290	6.3%	$57,160	5.5%	$56,400	6.0%
Associate professor	39,570	5.7	43,680	6.1	41,180	5.3	40,300	5.8
Assistant professor	33,400	6.1	36,650	7.1	33,840	5.7	34,010	6.2
Instructor	23,580	5.5	28,750	7.0	29,310	6.3	24,290	5.6
Lecturer	25,270	—	[illegible]	—	25,390	—	26,620	—
All ranks	43,010	5.9	[illegible]	6.4	43,380	5.5	44,440	6.0
Comprehensive institutions								
Professor	46,920	5.1	47,010	6.7	44,070	5.6	46,700	5.3
Associate professor	37,350	5.6	37,050	5.8	35,570	5.5	37,110	5.6
Assistant professor	30,900	5.8	30,400	6.1	29,920	6.0	30,710	5.9
Instructor	24,030	4.2	23,710	5.9	23,050	5.7	23,890	4.5
Lecturer	24,610	—	26,350	—	30,550	—	25,050	—
All ranks	38,080	5.3	37,220	6.2	35,610	5.7	37,720	5.5
Baccalaureate institutions								
Professor	41,080	5.4	44,770	5.8	36,190	5.7	40,410	5.6
Associate professor	34,250	5.2	34,120	6.1	30,120	5.7	32,570	5.7
Assistant professor	28,380	4.6	27,910	6.3	25,210	5.6	26,940	5.5
Instructor	23,020	5.8	22,330	5.9	21,300	5.7	22,150	5.8
Lecturer	24,190	—	28,260	—	22,270	—	24,420	—
All ranks	32,910	5.1	34,580	6.0	29,350	5.7	32,030	5.6
2-year institutions with academic ranks								
Professor	41,200	6.1	30,150	[illegible]	25,050	5.8	40,920	6.1
Associate professor	34,450	4.7	26,560	3.7	22,960	7.3	34,240	4.7
Assistant professor	29,510	5.4	22,810	5.8	21,650	7.5	29,190	5.5
Instructor	24,480	5.9	19,730	6.1	17,810	4.1	24,270	5.9
Lecturer	21,600	—	—	—	—	—	21,600	—
All ranks	33,500	5.5	24,650	5.2	21,940	7.1	33,200	5.5
2-year institutions without academic ranks								
All	31,210	5.1	21,990	9.7	23,510	2.9	31,040	5.1
All institutions except 2-year institutions without academic ranks								
Professor	50,070	5.6	55,900	6.3	41,900	5.6	50,420	5.8
Associate professor	37,890	5.6	38,800	6.0	33,560	5.6	37,530	5.7
Assistant professor	31,680	5.8	31,930	6.6	27,590	5.7	31,160	6.0
Instructor	23,890	5.1	24,050	6.2	22,060	5.7	23,660	5.3
Lecturer	25,360	—	27,850	—	25,010	—	25,770	—
All ranks	39,640	5.7	42,410	6.3	33,180	5.6	39,410	5.8

Note: Salary figures are based on 1,899 institutions; percentage increases are based on 1,880 institutions.
— No data reported

SOURCE: AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS

Median Salaries of Chief Executive and Academic Officers, 1988-89

Type of institution by size of budget	Chief executive officer	Chief academic officer
Doctoral		
Up to $106-million	$107,000	$89,165
$106.1-million to $192.5-million	115,000	91,000
$192.6-million to $295.7-million	113,000	102,585
$295.8-million or more	126,225	114,500
Comprehensive		
Up to $21-million	82,000	61,800
$21.1-million to $32.9-million	90,000	70,391
$33-million to $54-million	89,700	73,500
$54.1-million or more	105,500	85,700
Baccalaureate		
Up to $6.5-million	60,057	44,290
$6.6-million to $10.7-million	75,083	53,000
$10.8-million to $17.1-million	84,423	60,000
$17.2-million or more	97,000	68,400
2-year		
Up to $4.9-million	58,000	42,000
$5-million to $8.6-million	59,287	51,000
$8.7-million to $14.8-million	72,600	55,511
$14.9-million or more	80,250	62,848

SOURCE: COLLEGE AND UNIVERSITY PERSONNEL ASSOCIATION

Employment of Faculty Members, 1987

	Public 4-year	Private 4-year	Public 2-year	Other	All
Number of faculty members	319,400	217,900	217,600	69,800	824,700
Regular full-time	72%	58%	41%	63%	60%
Regular part-time	14	21	35	20	22
Temporary full-time	4	3	1	1	3
Temporary part-time	9	19	23	16	16

Note: Figures are based on a 1988 survey of 480 institutions and are adjusted to represent the distribution of all professors whose regular assignment includes instruction. The category of "Other" institutions includes private two-year colleges and specialized institutions. "Temporary" faculty members include visiting, acting, and adjunct professors. Because of rounding, figures may not add to 100 per cent.

SOURCE: U.S. DEPARTMENT OF EDUCATION

Median Salaries of Administrators, 1988-89

	All institutions	1-year change
Executive		
Chief executive of a system	$95,242	+12.0%
Chief executive of a single institution	80,000	+7.4
Executive vice-president	68,000	+9.7
Academic		
Chief academic officer	62,000	+9.1
Chief health-professions officer	70,000	+3.7
Director, library services	41,561	+8.9
Director, institutional research	42,700	+6.7
Director, educational-media services	32,201	+6.3
Director, learning-resources center	36,438	+5.6
Director, international studies	44,032	+8.7
Director, computer center, academic	43,000	+8.8
Administrator, grants and contracts	42,350	+2.7
Dean, architecture	76,400	+9.1
Dean, agriculture	75,000	+5.6
Dean, arts and letters	55,816	+8.4
Dean, arts and sciences	60,732	+3.2
Dean, business	60,050	+5.2
Dean, communications	55,303	+9.4
Dean, continuing education	46,680	+3.4
Dean, dentistry	103,629	+6.9
Dean, education	60,192	+4.7
Dean, engineering	76,008	+2.6
Dean, extension	52,860	+10.8
Dean, fine arts	53,573	+2.5
Dean, graduate programs	61,509	+3.3
Dean, health-related professions	54,704	+5.2
Dean, home economics	65,120	+8.5
Dean, humanities	47,250	+5.5
Dean, instruction	52,000	+7.6
Dean, law	100,500	+5.8
Dean, library and information sciences	60,274	+8.6
Dean, mathematics	47,500	+10.7
Dean, medicine	143,200	+19.3
Dean, music	57,000	+5.4

Note: Figures are based on a survey of 1,288 colleges and universities

	All institutions	1-year change
Dean, nursing	$52,917	+0.7%
Dean, pharmacy	83,500	+7.7
Dean, public health	95,299	+1.2
Dean, sciences	51,905	+8.8
Dean, social sciences	47,549	+6.6
Dean, social work	68,500	+3.6
Dean, special programs	42,042	+4.7
Dean, undergraduate programs	52,356	+0.7
Dean, veterinary medicine	92,340	+7.4
Dean, vocational education	49,688	+5.1
Administrative		
Chief business officer	58,187	+8.8
Chief administration officer	60,200	n/a
Chief financial officer	53,000	n/a
Chief planning officer	55,000	+5.1
Chief budget officer	48,275	+3.7
Chief planning and budget officer	59,080	+6.4
General counsel	63,410	+8.5
Chief personnel and human-resources officer	44,000	+5.9
Director, affirmative action & equal employment	42,540	+3.3
Director, personnel and affirmative action	36,274	+2.9
Director, computer center	45,563	+8.0
Director, computer center, administrative	42,000	+0.5
Director, information systems	50,000	+5.7
Chief physical-plant officer	42,432	+11.7
Comptroller	43,600	+6.3
Director, accounting	35,304	+4.4
Bursar	32,000	+3.1
Director, purchasing	34,008	+4.7
Director, bookstore	26,000	+8.4
Director, internal audit	41,700	+5.3
Director, auxiliary services	42,161	+3.1
Director, campus security	31,800	+6.0
Director, risk management and insurance	44,486	+4.5
Administrator, hospital medical center	109,700	+14.0

	All institutions	1-year change
External affairs		
Chief development officer	$54,000	+9.1%
Chief public-relations officer	37,550	+7.3
Chief development and public-relations officer	60,010	+9.1
Director, alumni affairs	31,080	+5.3
Director, development and alumni affairs	42,350	+9.8
Director, special and deferred gifts	40,000	+9.9
Director, church relations	30,000	+11.6
Director, community services	38,587	+5.6
Director, publications	31,502	+4.0
Director, information office	33,350	+6.7
Director, news bureau	28,932	+3.3
Student services		
Chief student-affairs officer	50,256	+6.6
Director, admissions	39,500	+7.3
Director, admissions and registrar	44,144	+5.6
Registrar	35,400	+6.2
Director, admissions and financial aid	43,548	+1.5
Director, student financial aid	34,032	+5.6
Director, food services	35,368	+8.8
Director, student housing	30,625	+6.8
Director, housing and food services	52,536	+8.6
Director, foreign students	31,400	+5.0
Director, student union	36,936	+8.2
Director, student activities	28,530	+4.4
Director, student placement	32,404	+8.0
Director, student counseling	38,100	+9.5
Director, student health services, physician	65,556	+3.5
Director, student health services, nurse	25,524	+7.8
Director, campus ministries	28,172	n/a
Director, athletics	44,350	+7.5
Men's	42,034	+0.3
Women's	32,600	−0.8
Director, sports information	24,670	n/a
Director, campus recreation and intramurals	29,150	+4.6
Director, enrollment management	44,188	n/a
Director, minority affairs	33,800	n/a

SOURCE: COLLEGE AND UNIVERSITY PERSONNEL ASSOCIATION

The Nation

RESOURCES

- Total Return on Endowments
- Top Colleges in Voluntary Support
- Revenues and Expenditures
- Largest Endowments per Student
- Endowments Over $100-Million

Total Return on College Endowments, Fiscal 1988

	Periods ending June 30, 1988			
	1 year	3 years	5 years	10 years
All endowments	+1.3%	+13.1%	+12.1%	+13.4%
By size				
$25-million and under	+1.5	+12.0	+11.2	+12.2
$25-million to $100-million	+1.3	+13.3	+12.1	+13.1
$100-million to $400-million	+0.8	+13.6	+12.5	+14.1
$400-million or more	+0.5	+14.9	+13.6	+15.0
By type of institution				
Public	+1.5	+12.7	+11.9	+12.8
Private	+1.2	+13.3	+12.2	+13.6
Comparative measurements				
Standard & Poor's 500 Index	-7.1	+16.4	+14.5	+16.1
Wilshire 5000 Stock Index	-6.0	+15.2	+12.8	+16.4
Shearson Lehman Hutton Government / Corporate Bond Index	+7.5	+10.7	+12.2	+10.8
Shearson Lehman Hutton Government Bond Index	+7.2	+10.4	+11.9	+11.1
Consumer Price Index	+3.8	+2.9	+3.2	+5.9

Note: Total-return rates represent change in market value, plus dividends and interest, for periods ending June 30, 1988, based on data for investment pools at 280 colleges and universities.

SOURCE: NATIONAL ASSOCIATION OF COLLEGE AND UNIVERSITY BUSINESS OFFICERS

Top 10 Institutions in Voluntary Support, 1987-88

Stanford University	$181,914,341
Harvard University	155,104,624
Cornell University	142,027,634
Yale University	121,238,917
University of Minnesota	109,533,409
University of Pennsylvania	106,163,050
California Institute of Technology	97,432,224
Massachusetts Institute of Technology	96,901,772
Columbia University	93,729,845
University of Wisconsin at Madison	89,076,681

SOURCE: COUNCIL FOR AID TO EDUCATION

Trends in College Revenues and Expenditures, 1980-86

	Revenues		Expenditures	
	Public institutions	Private institutions	Public institutions	Private institutions
1980-81	$43,195,617,000	$22,389,172,000	$42,279,806,000	$21,773,132,000
1981-82	47,270,822,000	24,920,034,000	46,219,134,000	24,120,314,000
1982-83	50,412,086,000	27,183,640,000	49,572,918,000	26,362,831,000
1983-84	54,545,275,000	29,872,012,000	53,086,644,000	28,906,716,000
1984-85	59,794,159,000	32,678,536,000	58,314,550,000	31,636,713,000
1985-86	65,004,632,000	35,432,985,000	63,193,853,000	34,341,889,000

SOURCE: U.S. DEPARTMENT OF EDUCATION

Largest Endowments per Student, 1988

Private institutions	Students	Amount
Rockefeller University	126	$3,994,310
Academy of the New Church	338	378,651
Princeton University	6,193	372,691
Harvard University	16,804	247,309
Mount Sinai School of Medicine	513	236,271
California Institute of Technology	1,822	235,860
Rice University	3,998	218,396
Grinnell College	1,245	217,396
Swarthmore College	1,316	207,802
Yale University	10,438	196,960
Public institutions		
Virginia Military Institute Foundation	1,474	57,509
Oregon Health Sciences University Foundation	1,220	31,456
Texas A&M University System	50,000	23,573
University of Texas System	118,773	23,404
University of Virginia	17,307	22,921
University of Delaware	16,246	18,541
University of Cincinnati	25,485	9,819
College of William and Mary	6,824	8,696
University of Michigan	43,400	7,980
Washington State University	16,221	7,595

Note: Based on market value of endowments on June 30, 1988, and full-time-equivalent enrollment for fall, 1987.

SOURCE: NATIONAL ASSOCIATION OF COLLEGE AND UNIVERSITY BUSINESS OFFICERS

College and University Endowments Over $100-Million, 1988

	Market value June 30, 1988
Harvard University	$4,155,778,000
University of Texas System	2,779,796,000
Princeton University	2,308,073,000
Yale University	2,055,871,000
Stanford University [1]	1,552,025,000
Columbia University	1,374,608,000
Texas A&M University System	1,178,641,000
Washington University	1,141,302,000
Massachusetts Institute of Technology	1,139,101,000
University of California	1,051,384,000
University of Chicago	897,826,000
Rice University	873,149,000
Northwestern University	827,341,000
Emory University	772,655,000
Cornell University	716,606,000
University of Pennsylvania	664,637,000
Dartmouth College	570,616,000
University of Rochester	535,807,000
New York University	521,686,000
Johns Hopkins University	508,399,000
Rockefeller University	503,283,000
Vanderbilt University	499,064,000
University of Notre Dame	463,502,000
California Institute of Technology	429,736,000
University of Southern California	403,685,000
University of Virginia	396,692,000
Duke University	392,893,000
Brown University	371,100,000
University of Michigan	346,337,000
Case Western Reserve University	331,183,000
Wellesley College	315,886,000
University of Delaware	301,224,000
Smith College	294,522,000
Southern Methodist University	293,119,000
Williams College	273,703,000
Swarthmore College	$273,467,000
Grinnell College	270,658,000
Carnegie Mellon University	265,664,000
Wake Forest University	258,833,000
George Washington University	251,502,000
University of Cincinnati	250,248,000
Ohio State University	247,932,000
Wesleyan University	245,007,000
University of Richmond	242,289,000
Amherst College	242,243,000
University of Tulsa [2]	242,076,000
Pomona College	241,909,000
University of Pittsburgh	229,469,000
University of Minnesota	227,210,000
Loyola University of Chicago	225,947,000
Berea College	219,880,000
Baylor University [2]	217,684,000
Georgetown University	216,487,000
Vassar College	211,503,000
Oberlin College	203,600,000
Boston College [2]	200,153,000
Middlebury College	197,563,000
Tulane University	197,099,000
Lehigh University	192,834,000
Rensselaer Polytechnic Institute	184,164,000
Lafayette College	176,265,000
Kansas University Endowment Association	172,342,000
University of Florida Foundation	170,560,000
Thomas Jefferson University	169,628,000
Mount Holyoke College	153,065,000
Georgia Institute of Technology	150,239,000
Carleton College	142,946,000
Pennsylvania State University	142,888,000
Boston University	142,483,000
Saint Louis University	141,317,000
Bowdoin College	$133,039,000
University of North Carolina at Chapel Hill	132,154,000
Rochester Institute of Technology	130,853,000
Syracuse University	130,205,000
Occidental College	130,005,000
Academy of the New Church	127,984,000
University of Nebraska	127,616,000
Brandeis University	126,571,000
Washington State University	123,205,000
State University of New York	122,051,000
Mount Sinai School of Medicine	121,207,000
University of Minnesota Foundation	118,494,000
University of Washington	117,517,000
University of Alabama System [3]	117,041,000
University of Miami [2]	115,313,000
University of Missouri	115,048,000
Trinity College (Conn.)	114,230,000
Tufts University	112,201,000
Bryn Mawr College [2]	109,424,000
Colorado College	109,159,000
University of Wisconsin Foundation	109,092,000
Colgate University	107,174,000
Earlham College	106,601,000
Whitman College	104,624,000
American University of Beirut	104,224,000
Rutgers University	104,072,000
University of Illinois Foundation	102,908,000

Note: Table includes institutions participating in the comparative-performance study by the National Association of College and University Business Officers.

[1] As of August 31, 1988
[2] As of May 31, 1988
[3] As of September 30, 1988

SOURCE: NATIONAL ASSOCIATION OF COLLEGE AND UNIVERSITY BUSINESS OFFICERS

- Major Gifts to Higher Education
- Institutions Receiving the Largest Defense Department Contracts
- Sources of Voluntary Support
- Costs at Public and Private Colleges
- Range of Tuition at Four-Year Colleges
- Top Institutions in Research-and-Development Spending

Major Gifts to Higher Education Since 1967

Emory University, Robert W. Woodruff, $105-million, 1979
Stanford University, David Packard, $70-million, 1986
University of Miami, James L. Knight, $56-million, 1986
California Institute of Technology, Arnold and Mabel Beckman Foundation, $50-million, 1986
Cornell University Medical Center, anonymous, $50-million, 1983

Stanford University, William R. Hewlett, $50-million, 1986
University of Richmond, E. Claiborne Robins, $50-million, 1969
Yale University, Paul Mellon, $47-million, 1967
University of Texas Southwestern Medical Center, Harold C. Simmons, $41-million, 1988
Vanderbilt University, Harold Sterling Vanderbilt, $41-million, 1970

California Institute of Technology, Liliore Green Rains, $40-million, 1986
Loyola Marymount University, Liliore Green Rains, $40-million, 1986
Pomona College, Liliore Green Rains, $40-million, 1986
Stanford University, Liliore Green Rains, $40-million, 1986
University of Illinois, Arnold and Mabel Beckman Foundation, $40-million, 1985

Georgia Institute of Technology, George Woodruff, $37.5-million, 1987
Carnegie Mellon University, anonymous, $35-million, 1976
National College of Education, Michael W. Louis, $33-million, 1989
University of Notre Dame, Edward J. DeBartolo, $33-million, 1989
University of Miami, Harcourt M. & Virginia W. Sylvester Foundation, $32.5-million, 1986

New York University, Leonard N. Stern, $30-million, 1988
New York University, Lawrence A. and Robert P. Tisch, $30-million, 1989
University of Oklahoma, Bill D. Saxon, $30-million, 1981
Trinity University, Norine Randle Murchison, $27.1-million, 1986
Baylor College of Medicine, Albert B. Alkek, $25-million, 1988

Columbia University, John M. Kluge, $25-million, 1987
Ohio State University, Leslie H. Wexner, $25-million, 1987
Southern Methodist University, Robert H. and Nancy Dedman, $25-million, 1981
University of Minnesota, Curtis L. Carlson, $25-million, 1985
University of Pennsylvania, Saul P. Steinberg, $25-million, 1989

University of Rochester, Charles F. Hutchison, $25-million, 1976
Cornell University, Samuel C. Johnson, $20-million, 1984
Spelman College, Bill Cosby, $20-million, 1988
University of Richmond, Mr. and Mrs. Robert Jepson, Jr., $20-million, 1987
University of Texas Southwestern Medical Center, H. Ross Perot, $20-million, 1987

Note: Includes gifts by individual donors to colleges and universities from 1967 to date

SOURCE: CHRONICLE REPORTING

Non-Profit Institutions Receiving the Largest Contracts From the Defense Department, Fiscal 1988

Massachusetts Institute of Technology	$403,665,000
Aerospace Corporation	367,000,000
Johns Hopkins University	353,949,000
Mitre Corporation	351,616,000
Charles S. Draper Laboratory	139,592,000
University of California	66,325,000
SRI International	59,125,000
IIT Research Institute	55,557,000
Carnegie Mellon University	50,014,000
Pennsylvania State University	46,816,000
University of Texas	46,008,000
Rand Corporation	44,928,000
Georgia Institute of Technology	41,395,000
Stanford University	33,773,000
University of Southern California	27,819,000
Analytic Services Inc.	27,362,000
Battelle Memorial Institute	24,450,000
Riverside Research Institute	24,434,000
Hudson Institute	23,655,000
University of Washington	20,837,000
University of Illinois	20,697,000
Institute for Defense Analyses	20,657,000
University of Dayton	19,423,000
Utah State University	17,532,000
South Carolina Research Authority	16,161,000
Cornell University	14,004,000
Woods Hole Oceanographic Institution	13,423,000
University of Maryland	13,292,000
Logistics Management Institute	12,297,000
University of Massachusetts	10,389,000

Note: Includes Department of Defense contracts of greater than $10-million to colleges, universities, and other non-profit organizations. The contracts were for research, development, testing, and evaluation for military projects and for civilian water-resource projects.

SOURCE: U.S. DEPARTMENT OF DEFENSE

Sources of Voluntary Support for Higher Education, 1987-88

			Percentage change	
Sources	Amount	Per cent	1-year	5-year
Alumni/alumnae	$2,042,000,000	24.9%	−13.0%	+65.1%
Other individuals	1,927,000,000	23.5	− 6.7	+61.9
Corporations	1,853,000,000	22.6	+ 1.9	+82.0
Foundations	1,607,000,000	19.6	+ 6.2	+44.5
Religious organizations	197,000,000	2.4	− 3.4	− 4.4
Other	574,000,000	7.0	+ 4.0	+44.6
Total	$8,200,000,000	100.0%	− 3.5%	+58.9%

SOURCE: COUNCIL FOR AID TO EDUCATION

Costs at Public and Private Institutions, 1989-90

	Public colleges		Private colleges	
	Resident	Commuter	Resident	Commuter
4-year colleges				
Tuition and fees	$1,694	$1,694	$8,737	$8,737
Books and supplies	454	454	459	459
Room and board*	3,039	1,371	3,898	1,501
Transportation	442	733	414	714
Other	1,042	1,065	818	910
Total	$6,671	$5,317	$14,326	$12,321
2-year colleges				
Tuition and fees	$842	$842	$4,713	$4,713
Books and supplies	438	438	424	424
Room and board*	—	1,465	3,258	1,324
Transportation	—	846	423	651
Other	—	950	832	750
Total	—	$4,541	$9,650	$7,862

* Room not included for commuter students.
— Insufficient data.

SOURCE: THE COLLEGE BOARD

Range of Tuition at Four-Year Institutions, 1989-90

	Number of colleges	Average tuition and fees	Proportion of total enrollment
Private institutions			
$14,000 or more	30	$14,387	7.6%
$13,000 — $13,999	42	13,497	10.3
$12,000 — $12,999	20	12,494	3.3
$11,000 — $11,999	31	11,540	5.5
$10,000 — $10,999	49	10,490	6.3
$9,000 — $9,999	79	9,424	10.0
$8,000 — $8,999	106	8,487	12.4
$7,000 — $7,999	136	7,482	14.2
$6,000 — $6,999	142	6,469	10.2
$5,000 — $5,999	102	5,504	8.1
$4,000 — $4,999	75	4,507	5.1
$3,000 — $3,999	58	3,516	2.8
$2,000 — $2,999	41	2,539	1.6
$1,000 — $1,999	7	1,535	2.2
Less than $1,000	5	259	0.4
Total	923	—	100.0%
Public institutions			
$3,000 or more	11	$3,284	1.8%
$2,000 — $2,999	65	2,383	24.4
$1,500 — $1,999	114	1,722	30.9
$1,000 — $1,499	119	1,295	28.4
$500 — $999	38	868	14.0
Less than $500	5	393	0.5
Total	352	—	100.0%

Note: Includes only those institutions that provided final or estimated 1989-90 tuition and fee charges by June 21, 1989.

SOURCE: THE COLLEGE BOARD

Top Institutions in Research-and-Development Spending, Fiscal 1987

	Total funds for research & development
Johns Hopkins University	$510,896,000
Massachusetts Institute of Technology	264,416,000
University of Wisconsin at Madison	254,493,000
Cornell University	244,840,000
Stanford University	240,885,000
University of Michigan	224,890,000
University of Minnesota	222,381,000
Texas A&M University	219,853,000
University of California at Los Angeles	188,831,000
University of Illinois at Urbana-Champaign	188,682,000
University of Washington	187,062,000
University of California at San Diego	183,047,000
University of California at Berkeley	175,273,000
University of California at San Francisco	169,436,000
Harvard University	169,074,000
University of Texas at Austin	168,931,000
Pennsylvania State University	165,841,000
University of Pennsylvania	158,334,000
Columbia University	149,904,000
Yale University	145,818,000
University of California at Davis	143,798,000
University of Arizona	138,726,000
University of Southern California	134,995,000
University of Maryland at College Park	126,239,000
University of Georgia	124,442,000
Ohio State University	123,246,000
Georgia Institute of Technology	120,342,000
University of Colorado	112,276,000
Michigan State University	111,810,000
Purdue University	107,131,000

Note: Figures cover only research-and-development expenditures in science and engineering, and exclude spending in such disciplines as the arts, education, the humanities, law, and physical education.

SOURCE: NATIONAL SCIENCE FOUNDATION

The Nation

INSTITUTIONS

- Administrators' Views of Challenges Facing Institutions in the Next Five Years
- Selective Liberal-Arts Colleges
- Administrators' Views on Institutional Status
- Use of Academic Calendars
- Leading Research Universities

Administrators' Views of Challenges Facing Institutions in the Next Five Years

	2-year	Bacca-laureate	Compre-hensive	Doctoral	All
Percentage of administrators citing each challenge:					
Adequate finances	40%	40%	34%	40%	39%
Fund raising	22	16	30	14	21
Maintain enrollment	48	44	40	23	44
Enrollment growth	3	14	6	6	7
Assessment	6	18	20	3	12
Maintain quality	25	30	34	25	28
Strengthen curriculum	16	12	13	30	15
Serve new needs and populations	28	11	8	4	18
Effective faculty	6	14	9	8	9
Recruitment and retention of good faculty	13	21	26	37	19
Other faculty issues	14	6	10	9	11
Diversity	8	14	14	33	13
Facilities and technology	46	38	35	50	42

Note: The figures are based on responses to a survey sent to senior administrators at 456 colleges and universities in the spring of 1989. The response rate to the survey was 80 per cent.

SOURCE: AMERICAN COUNCIL ON EDUCATION

Selective Liberal-Arts Colleges

Agnes Scott College
Albion College
Albright College
Allegheny College
Alma College
Amherst College
Antioch University
Augustana College (Ill.)
Austin College
Barat College
Bard College
Barnard College
Bates College
Beloit College
Benedictine College
Bennington College
Bethany College (W.Va.)
Birmingham Southern College
Blackburn College
Borromeo College of Ohio
Bowdoin College
Bryn Mawr College
Bucknell University
Carleton College
Carroll College (Wis.)
Centenary College of Louisiana
Centre College of Kentucky
Chatham College
Chestnut Hill College
Claremont McKenna College
Coe College
Colby College
Colgate University
College of Mount Saint Vincent
College of the Holy Cross
College of Wooster
Colorado College
Connecticut College
Cornell College
Davidson College
De Pauw University
Denison University
Dickinson College
Drew University
Earlham College
Eckerd College
Emmanuel College
Franklin and Marshall College
Furman University
Gettysburg College
Goddard College
Gordon College
Goshen College
Goucher College
Grinnell College
Guilford College
Gustavus Adolphus College
Hamilton College
Hamline University
Hampden-Sydney College
Hampshire College
Hanover College
Hartwick College
Haverford College
Hendrix College
Hobart and William Smith Colleges
Hollins College
Hope College
Houghton College
Juniata College
Kalamazoo College
Kenyon College
King College
Knox College
Lafayette College
Lake Forest College
Lawrence University
Lebanon Valley College
Lewis and Clark College
Luther College
Macalester College
MacMurray College
Manhattanville College
Marlboro College
Marymount Manhattan College
Middlebury College
Mills College
Millsaps College
Mount Holyoke College
Muhlenberg College
Nebraska Wesleyan University
Neumann College
Oberlin College
Occidental College
Oglethorpe University
Pitzer College
Pomona College
Principia College
Radcliffe College
Randolph-Macon College
Randolph-Macon Woman's College
Reed College
Regis College (Mass.)
Rhodes College
Ripon College
Rockford College
St. John's College–Main Campus
St. John's College at Santa Fe
Saint John's University (Minn.)
St. Lawrence University
Saint Olaf College
Salem College
Sarah Lawrence College
Scripps College
Skidmore College
Smith College
State University of New York College at Purchase
Swarthmore College
Sweet Briar College
Thomas More College
Trinity College (Conn.)
Union College (N.Y.)
University of Dallas
University of the South
Ursinus College
Vassar College
Virginia Military Institute
Wabash College
Wartburg College
Washington and Jefferson College
Washington and Lee University
Washington College
Wellesley College
Wells College
Wesleyan University
Western Maryland College
Westmont College
Wheaton College (Ill.)
Wheaton College (Mass.)
Whitman College
Willamette University
Williams College

Note: These institutions, classified as Liberal Arts Colleges I by the Carnegie Foundation for the Advancement of Teaching, are highly selective, primarily undergraduate colleges that award more than half of their baccalaureate degrees in arts-and-science fields.

SOURCE: CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING

Administrators' Views on Institutional Status, 1989

	2-year	Bacca-laureate	Compre-hensive	Doctoral	All
Percentage rating own institution as "excellent" or "very good":					
General level of preparation of entering students	2%	20%	36%	62%	16%
Job prospects for degree recipients	60	62	76	79	64
Ability to attract good students	19	30	47	66	30
Ability to attract and hold good faculty members	50	56	54	61	53
Adequacy of faculty compensation	31	20	38	34	29
Overall financial condition of institution	54	38	48	46	48
Overall quality of campus life	44	42	55	54	46
Adequacy of physical plant for:					
Current needs	30	31	43	22	32
Needs over next 10 years	22	17	28	9	21
Adequacy of long-range planning for physical-plant needs	34	47	46	41	40
Percentage rating own institution as "fair" or "poor":					
General level of preparation of entering students	63%	42%	19%	11%	47%
Job prospects for degree recipients	10	4	2	0	6
Ability to attract good students	24	25	7	3	20
Ability to attract and hold good faculty members	8	14	6	11	9
Adequacy of faculty compensation	32	46	21	35	34
Overall financial condition of institution	18	24	18	21	20
Overall quality of campus life	12	11	11	3	11
Adequacy of physical plant for:					
Current needs	32	28	32	36	31
Needs over next 10 years	58	56	49	62	56
Adequacy of long-range planning for physical-plant needs	33	30	19	22	29

Note: The figures are based on responses to a survey sent to senior administrators at 456 colleges and universities in the spring of 1989. The response rate to the survey was 80 per cent. Percentages reporting "good" are omitted.

SOURCE: AMERICAN COUNCIL ON EDUCATION

Use of Academic Calendars, 1988-89

Calendar type	Number of institutions	Per cent of total
Traditional semester	141	4%
Early semester	1,895	57
Quarter	765	23
Trimester	78	2
4–1–4	259	8
Other	206	6

SOURCE: AMERICAN ASSOCIATION OF COLLEGIATE REGISTRARS AND ADMISSIONS OFFICERS

Leading Research Universities

Boston University
California Institute of Technology
Carnegie Mellon University
Case Western Reserve University
Colorado State University
Columbia University
Cornell University
Duke University
Georgia Institute of Technology
Harvard University
Howard University
Indiana University at Bloomington
Johns Hopkins University
Louisiana State University
Massachusetts Institute of Technology
Michigan State University
New Mexico State University
New York University
North Carolina State University
Northwestern University
Ohio State University
Oregon State University
Pennsylvania State University
Princeton University
Purdue University
Rockefeller University
Rutgers University
Stanford University
State University of New York at Stony Brook
Texas A&M University
University of Arizona
University of California at Berkeley
University of California at Davis
University of California at Irvine
University of California at Los Angeles
University of California at San Diego
University of California at San Francisco
University of Chicago
University of Cincinnati
University of Colorado at Boulder
University of Connecticut
University of Florida
University of Georgia
University of Hawaii at Manoa
University of Illinois at Chicago
University of Illinois at Urbana-Champaign
University of Iowa
University of Kentucky
University of Maryland at College Park
University of Miami
University of Michigan at Ann Arbor
University of Minnesota–Twin Cities
University of Missouri at Columbia
University of New Mexico
University of North Carolina at Chapel Hill
University of Pennsylvania
University of Pittsburgh
University of Rochester
University of Southern California
University of Tennessee at Knoxville
University of Texas at Austin
University of Utah
University of Virginia
University of Washington
University of Wisconsin at Madison
Virginia Polytechnic Inst. and State University
Vanderbilt University
Washington University
Yale University
Yeshiva University

Note: These institutions are classified as Research Universities I by the Carnegie Foundation for the Advancement of Teaching. Most offer a full range of baccalaureate programs, are committed to graduate education through the doctoral degree, and give a high priority to research. Each receives at least $33.5-million in federal support and awards at least 50 Ph.D. degrees annually.

SOURCE: CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING

THE STATES

Alabama

ALABAMA politicians have always cared deeply about education issues, but not all of the legacies of their concern are welcomed today.

For example, legislators pride themselves on how well they look after colleges in their districts. But many in Alabama say the lawmakers' attention is usually most visible in pork-barrel projects and in efforts to block better coordination of the state's higher-education system. That situation has been exacerbated in recent years by many college administrators' winning seats in the Legislature.

Gov. Guy Hunt has tried to curb some of the legislative maneuvering on education issues. But even though he is popular in the state, as a Republican he has been unable to sway the overwhelmingly Democratic Legislature.

Another unwelcome legacy of Alabama's past is visible in a continuing legal battle over desegregation. Since 1970 the state has been in and out of federal courts over the issue, and there's no end in sight.

The tight financial times in Alabama in the last five years have only added to the state's problems. Colleges have been unable to obtain substantial increases in state support because of declines in the agriculture and oil industries.

The two universities with the most political clout and visibility in Alabama are arch-rivals Auburn University and the University of Alabama. Their athletic competitions are major events in the state, and their rivalry extends to budget matters.

The University of Alabama at Huntsville has a rapidly growing reputation because of its efforts to work with the many aerospace and medical-technology businesses near its campus.

While historically black colleges have not had the political power of predominantly white colleges in the state, Alabama's black population is extremely loyal to them. The best known of the state's historically black colleges is Tuskegee University, which receives some state support even though it is private.

Most of the other private higher education in the state takes place at colleges affiliated with religious groups.

The Alabama Commission on Higher Education serves as the coordinating board for public higher education and has the authority to approve new programs and recommend budgets. Campus governing boards, however, tend to have more clout than the commission. Community colleges are governed by the Board of Education, an elected body.

DEMOGRAPHICS

Population: 4,150,000 (Rank: 22)

Age distribution:

Up to 17	27.2%
18 to 24	11.1%
25 to 34	17.2%
35 and older	44.5%

Racial and ethnic distribution:

American Indian	0.2%
Asian	0.3%
Black	25.6%
White	73.8%
Other and unknown	0.1%
Hispanic (may be any race)	0.9%

Educational attainment of adults:

At least 4 years of high school	56.5%
At least 1 to 3 years of college	24.7%
At least 4 years of college	12.2%

Per-capita personal income: $12,851

New high-school graduates in:

1989-90 (estimate)	42,631
1999-2000 (estimate)	37,841

High-school dropout rate: 29.8%

POLITICAL LEADERSHIP

Governor: Guy Hunt (R), term ends 1991

Governor's higher-education adviser: Judi McGuire, 11 South Union Street, State House, Montgomery 36130; (205) 261-7182

U.S. Senators: Howell Heflin (D), term ends 1991; Richard C. Shelby (D), term ends 1993

U.S. Representatives:
5 Democrats, 2 Republicans
Tom Bevill (D), Glen Browder (D), Sonny Callahan (R), William L. Dickinson (R), Ben Erdreich (D), Ronnie G. Flippo (D), Claude Harris (D)

Legislature: Senate, 30 Democrats, 5 Republicans; House, 89 Democrats, 16 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	19
Public 2-year institutions	40
Private 4-year institutions	18
Private 2-year institutions	16
Total	93

Vocational institutions: 78

Statewide coordinating board:
Commission on Higher Education
One Court Square, No. 221
Montgomery 36197
(205) 269-2700
Joseph T. Sutton, executive director

Private-college association:
Council for the Advancement
of Private Colleges in Alabama
6 Office Park Circle, Suite 112
Birmingham 35223
(205) 879-1673
Wayne Anderson, president

Institutions censured by the AAUP:
Alabama State University,
Auburn University, Talladega College

Institutions under NCAA sanctions:
Alabama A&M University,
Alabama State University

FACULTY MEMBERS

Full-time faculty members:

At public institutions	6,245
At private institutions	787

Proportion with tenure:

At public institutions	65.5%
At private institutions	42.6%

Proportion who are women:

At public institutions	32.6%
At private institutions	35.2%

Average pay of full-time professors:

At public 4-year institutions	$32,953
At public 2-year institutions	$28,046
At private 4-year institutions	$24,915
At private 2-year institutions	$26,865

STUDENTS

Enrollment:

At public 4-year institutions	105,914
At public 2-year institutions	56,364
At private 4-year insitutions	17,468
At private 2-year institutions	3,602
Undergraduate	164,041
First-time freshmen	40,181
Graduate	16,298
Professional	3,009
Total	183,348

Enrollment highlights:

Women	52.8%
Full-time	69.7%
Minority	22.6%
Foreign	2.2%
10-year change in total enrollment	Up 13.0%

Degrees awarded:

Associate	6,183
Bachelor's	15,981
Master's	3,946
Doctorate	279
Professional	797

Residence of new students: State residents make up 80% of all new college students enrolled in Alabama; 90% of all Alabama residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	80.7%
Private institutions	19.3%
4-year institutions	52.7%
2-year institutions	47.3%

Proportion of students at largest public institutions who are minority-group members:

Auburn University main campus	4.3%
University of Alabama at Tuscaloosa	10.9%

Proportion of students at largest private institutions who are minority-group members:

Samford University	5.9%
Tuskegee University	89.3%

Test scores: Students averaged 18.1 on the A.C.T., which was taken by 54% of Alabama's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,275
At public 2-year institutions	$666
At private 4-year institutions	$4,316
At private 2-year insitutions	$2,779

Most expensive public institution: University of Alabama at Birmingham, $1,823

Most expensive private institution: Birmingham Southern College, $8,295

Expenditures:

Public institutions	$1,324,774,000
Private institutions	$186,596,000

State funds for higher-education operating expenses: $775,343,000

Two-year change: Up 23%

State spending on student aid:
Need-based: $2,300,000; 3,944 awards
Non-need-based: $4,048,000; 7,889 awards
Other: $4,891,000

Salary of chief executive of largest public 4-year campus:
James E. Martin, Auburn University main campus: $115,000 (1988-89)

Total spending on research and development by doctorate-granting universities: $152,925,000

Sources:

Federal government	55.8%
State and local governments	10.8%
Industry	7.1%
The institution itself	19.6%
Other	6.7%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$35,273,000
GI Bill	$23,321,000
Pell Grants	$51,740,000

Total federal spending on college-and-university-based research and development: $100,633,000

Selected programs:

Department of Health and Human Services	$63,723,000
National Science Foundation	$2,864,000
Department of Defense	$11,797,000
Department of Agriculture	$7,063,000
Department of Energy	$1,849,000

Largest endowment:

University of Alabama System	$117,041,000

Top fund raisers:

Samford University	$15,898,000
Auburn University	$15,118,000
University of Alabama at Birmingham	$14,905,000

MISCELLANY

★ Three community colleges in Alabama are named for former Gov. George C. Wallace and another is named for his late wife, Lurleen.

★ Administrators at George C. Wallace State Community College at Selma moved last winter to end the practice of flying the Confederate flag on their campus. The decision came several months before Julius R. Brown took office as the campus's first black president.

★ Alabama's newest member of the U.S. House of Representatives, Glen Browder, is an academic. Representative Browder, an Emory University Ph.D., is a former professor of political science at Jacksonville State University. He left Jacksonville State in 1987 to become Alabama's Secretary of State and left that post this year, when he was elected to the House following the death of Bill Nichols.

★ "Tuskegee Chunk," a new peanut-butter ice cream from Ben & Jerry's, honors Tuskegee University and George Washington Carver, "the father of the peanut." The ice-cream company is planning to set up an annual scholarship program for business students at Tuskegee.

★ Some dispute exists as to which college in Alabama is the oldest. The state's first constitution in 1819 required the establishment of the University of Alabama; its doors swung open in 1831. It had been beaten to the punch, however, by Athens Academy (now Athens State College), whose first class was held in 1822.

Alaska

THANKS to its oil boom, Alaska has an extensive and sophisticated system of public higher education. But thanks to busts in oil prices, Alaska often struggles to keep that far-flung network of colleges and universities from financial collapse.

Bust conditions have prevailed for the last several years, driving the Board of Regents of the University of Alaska System, the governing board for all of public higher education, to adopt several extraordinary and sometimes controversial measures to save money.

The most contentious was a restructuring in 1987 that called for merging 11 community colleges into a reconstituted university system.

The restructuring has created a university that is unique in higher education: Its mission makes it responsible for a range of offerings from airplane mechanics to linguistics.

Understandably, the University of Alaska is also known for its programs in polar studies, "Native Alaskan" cultures, and—as would be expected in a state that depends on oil revenue for about 85 per cent of its income—its petroleum and geology research.

The state has also been a pioneer

Continued on Following Page

Alaska
CONTINUED

in the use of telecommunications, and it is not uncommon for students in remote areas like Nome and Kotzebue to hear lectures from a speakerphone in their respective classrooms.

Through aggressive recruiting, the university has increased the number of Native Alaskans pursuing higher education, but officials concede that they are still not providing the environment that encourages those students to complete their degrees.

Although the regents make most of the decisions affecting higher education, and the merger further strengthened their role, Alaska also has a statewide coordinating board, the Commission on Postsecondary Education.

DEMOGRAPHICS

Population: 565,000 (Rank: 49)

Age distribution:

Up to 17	32.1%
18 to 24	11.8%
25 to 34	19.3%
35 and older	36.8%

Racial and ethnic distribution:

American Indian	16.0%
Asian	2.1%
Black	3.4%
White	77.6%
Other and unknown	0.9%
Hispanic (may be any race)	2.4%

Educational attainment of adults:

At least 4 years of high school	82.5%
At least 1 to 3 years of college	43.7%
At least 4 years of college	21.1%

Per-capita personal income: $19,079

New high-school graduates in:

1989-90 (estimate)	6,029
1999-2000 (estimate)	10,275

High-school dropout rate: 33.3%

POLITICAL LEADERSHIP

Governor: Steve Cowper (D), term ends 1990

Governor's higher-education adviser: Mike Irwin, State Capitol, P.O. Box A, Juneau 99811; (907) 465-3500

U.S. Senators: Frank H. Murkowski (R), term ends 1993; Ted Stevens (R), term ends 1991

U.S. Representative:
1 Republican
Don Young (R)

Legislature: Senate, 8 Democrats, 12 Republicans; House, 23 Democrats, 17 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	3
Public 2-year institutions	9
Private 4-year institutions	3
Private 2-year institutions	1
Total	16

Vocational institutions: 60

Statewide coordinating board:
Alaska Postsecondary Education Commission
400 Willoughby Avenue
Pouch FP
Juneau 99811
(907) 465-2854
Ronald A. Phipps, executive director

Private-college association:
None

Institutions censured by the AAUP:
None

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	729
At private institutions	47

Proportion with tenure:

At public institutions	26.0%
At private institutions	n/a

Proportion who are women:

At public institutions	28.7%
At private institutions	38.3%

Average pay of full-time professors:

At public 4-year institutions	$40,617
At public 2-year institutions	$43,608
At private 4-year institutions	$33,311
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	11,341
At public 2-year institutions	14,650
At private 4-year institutions	946
At private 2-year institutions	0
Undergraduate	25,694
First-time freshmen	759
Graduate	1,243
Professional	0
Total	26,937

Enrollment highlights:

Women	57.8%
Full-time	31.4%
Minority	15.0%
Foreign	3.1%
10-year change in total enrollment	Up 25.2%

Degrees awarded:

Associate	742
Bachelor's	898
Master's	320
Doctorate	7
Professional	0

Residence of new students: State residents make up 87% of all new college students enrolled in Alaska; 43% of all Alaska residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	92.7%
Private institutions	7.3%
4-year institutions	37.8%
2-year institutions	62.2%

Proportion of students at largest public institutions who are minority-group members:

Anchorage Community College	16.1%
University of Alaska at Fairbanks	12.6%

Proportion of students at largest private institutions who are minority-group members:

Alaska Pacific University	18.5%
Sheldon Jackson College	45.8%

Test scores: Students averaged 18.4 on the A.C.T., which was taken by 37% of Alaska's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$975
At public 2-year institutions	$824
At private 4-year institutions	$3,719
At private 2-year institutions	n/a

Sources and notes appear on Page 96

Most expensive public institution:
University of Alaska at Fairbanks, $1,512

Most expensive private institution:
Alaska Pacific University, $5,930

Expenditures:

Public institutions	$224,042,000
Private institutions	$10,171,000

State funds for higher-education operating expenses: $164,733,000

Two-year change: Down 21%

State spending on student aid:
Need-based: $230,000; 154 awards
Non-need-based: None
Other: None

Salary of chief executive of largest public 4-year campus:
Patrick J. O'Rourke, University of Alaska at Fairbanks: $104,639 (1988-89)

Total spending on research and development by doctorate-granting universities: $30,192,000

Sources:

Federal government	47.9%
State and local governments	9.7%
Industry	4.0%
The institution itself	36.6%
Other	1.8%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$5,694,000
GI Bill	$2,415,000
Pell Grants	$2,693,000

Total federal spending on college-and-university-based research and development: $15,473,000

Selected programs:

Department of Health and Human Services	$357,000
National Science Foundation	$5,581,000
Department of Defense	$942,000
Department of Agriculture	$1,128,000
Department of Energy	$598,000

Largest endowment:

University of Alaska	$22,996,000

Top fund raiser:

University of Alaska at Fairbanks	$2,929,000

MISCELLANY

★ The northernmost campus in the United States is Chukchi College, in Kotzebue. The westernmost is Northwest Community College, in Nome. Both are 2-year branch campuses of the University of Alaska.

★ The University of Alaska at Fairbanks is one of some three dozen universities belonging to the Arctic Research Consortium of the United States, a group that provides logistical support for researchers interested in working in the Arctic and that serves as a forum for sharing information about frozen regions of the globe.

★ After the massive oil spill when the tanker *Exxon Valdez* ran aground in Prince William Sound, two buildings at Prince William Sound Community College were temporarily converted into animal-rescue centers where birds and otters were cleaned of oil and treated for injuries.

★ **The oldest higher-education institution in Alaska is Sheldon Jackson College, founded in 1878.**

Arizona

AT THE REQUEST of Gov. Rose Mofford, Arizona has set aside $2.5-million to help state colleges improve their recruitment of Hispanic, American Indian, and black students, who together make up a significant and growing segment of the population in the state.

The sum is not startling. But in the wake of the stormy reign of Governor Mofford's predecessor, Republican Evan Mecham, the step is symbolic of the state's recent efforts to become more sensitive to issues concerning minority students and higher education as a whole.

Another sign of the increased sensitivity was a decision by the Board of Regents in the last year to establish the birthday of the Rev. Martin Luther King, Jr., as a system holiday—the same holiday that Mr. Mecham blocked before he was impeached and removed from office.

The board serves as a governing and coordinating body for the state's public four-year colleges and universities.

The state has also instituted at its public universities new admissions criteria that stress counseling for poorly prepared students.

Despite its tradition of fiscal conservatism, Arizona has also been more generous recently in its budgets for college operations.

Arizona's community colleges, which are respected nationally for their success in job training, are governed by the State Board of Directors, which also acts as a coordinating board. Local governing boards also have some authority over individual community colleges.

DEMOGRAPHICS

Population: 3,649,000 (Rank: 24)

Age distribution:

Up to 17	27.3%
18 to 24	10.7%
25 to 34	17.6%
35 and older	44.4%

Racial and ethnic distribution:

American Indian	5.7%
Asian	0.9%
Black	2.8%
White	83.2%
Other and unknown	7.5%
Hispanic (may be any race)	16.2%

Educational attainment of adults:

At least 4 years of high school	72.4%
At least 1 to 3 years of college	38.0%
At least 4 years of college	17.4%

Per-capita personal income: $14,970

New high-school graduates in:

1989-90 (estimate)	31,876
1999-2000 (estimate)	44,051

High-school dropout rate: 35.6%

POLITICAL LEADERSHIP

Governor: Rose Mofford (D), term ends 1991

Governor's higher-education adviser: Michael McCormick, State House, Phoenix 85007; (602) 542-4331

U.S. Senators: Dennis DeConcini (D), term ends 1995; John S. McCain (R), term ends 1993

U.S. Representatives:
1 Democrat, 4 Republicans
Jim Kolbe (R), Jon L. Kyl (R), John J. Rhodes, III (R), Bob Stump (R), Morris K. Udall (D)

Legislature: Senate, 13 Democrats, 17 Republicans; House, 26 Democrats, 34 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	3
Public 2-year institutions	16
Private 4-year institutions	12
Private 2-year institutions	4
Total	35

Vocational institutions: 211

Statewide coordinating board:
Arizona Board of Regents
3030 North Central, Suite 1400
Phoenix 85012
(602) 255-4082
Molly C. Broad, executive director

Private-college association:
None

Institutions censured by the AAUP:
None

Institution under NCAA sanctions:
Arizona State University

FACULTY MEMBERS

Full-time faculty members:

At public institutions	4,553
At private institutions	178

Proportion with tenure:

At public institutions	67.6%
At private institutions	51.8%

Proportion who are women:

At public institutions	24.6%
At private institutions	35.4%

Average pay of full-time professors:

At public 4-year institutions	$41,074
At public 2-year institutions	$31,004
At private 4-year institutions	$28,523
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	89,373
At public 2-year institutions	139,179
At private 4-year institutions	6,888
At private 2-year institutions	1,793
Undergraduate	213,799
First-time freshmen	56,345
Graduate	21,983
Professional	1,451
Total	237,233

Enrollment highlights:

Women	53.1%
Full-time	40.1%
Minority	17.7%
Foreign	2.7%
10-year change in total enrollment	Up 30.7%

Degrees awarded:

Associate	5,911
Bachelor's	12,287
Master's	4,819
Doctorate	506
Professional	352

Residence of new students: State residents make up 89% of all new college students enrolled in Arizona; 97% of all Arizona residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	93.5%
Private institutions	6.5%
4-year institutions	30.0%
2-year institutions	70.0%

Proportion of students at largest public institutions who are minority-group members:

Arizona State University	10.6%
University of Arizona	11.6%

Proportion of students at largest private institutions who are minority-group members:

University of Phoenix	20.5%
DeVry Institute of Technology	18.6%

Test scores: Students averaged 19.3 on the A.C.T., which was taken by 37% of Arizona's high school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,136
At public 2-year institutions	$358
At private 4-year institutions	$2,462
At private 2-year institutions	n/a

Most expensive public institution:
Northern Arizona University, $1,412

Most expensive private institutions:
ITT Technical Institute
at Phoenix and at Tucson, $11,017

Expenditures:

Public institutions	$1,017,203,000
Private institutions	$52,887,000

State funds for higher-education operating expenses: $544,560,000

Two-year change: Up 21%

State spending on student aid:
Need-based: $3,526,000; 4,200 awards
Non–need-based: None
Other: None

Salary of chief executive of largest public 4-year campus:
Richard E. Peck (interim),
Arizona State University:
$113,750 (1989-90)

Total spending on research and development by doctorate-granting universities: $181,263,000

Sources:	
Federal government	44.7%
State and local governments	4.9%
Industry	9.6%
The institution itself	34.0%
Other	6.8%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$8,465,000
GI Bill	$16,856,000
Pell Grants	$61,381,000

Total federal spending on college-and-university-based research and development: $80,485,000

Selected programs:	
Department of Health and Human Services	$32,576,000
National Science Foundation	$15,046,000
Department of Defense	$11,088,000
Department of Agriculture	$3,559,000
Department of Energy	$1,990,000

Largest endowment:

University of Arizona	$47,371,000

Top fund raisers:

University of Arizona	$35,849,000
Arizona State University	$23,055,000
Northern Arizona University	$3,679,000

MISCELLANY

★ Northern Arizona University has signed a long-term agreement with the Hopi Indian Tribe of Arizona to develop a model elementary school and promote economic development on the tribe's reservation, which is about 50 miles east of the university campus. Northern Arizona officials say the agreement may be the first such alliance between a state institution and an American Indian tribe. Arizona is also home to a community college controlled by the Navajo Indians.

★ Public-college students are financing a new scholarship endowment through a 1-per-cent surcharge that the state tacked onto their registration fees—amounting to about $7 a semester. The fund, which is expected to reach about $2.2-million next year, will benefit students from ethnic groups that have traditionally been underrepresented at state colleges.

★ The American Graduate School of International Management, known as Thunderbird, is a unique, free-standing graduate program that offers just one degree, a master's in international management. The curriculum consists of foreign languages, area studies, and business courses.

★ In the desert 20 miles north of Tucson, scientists and architects are assembling a 2½-acre structure that they hope will take the first realistic stab at answering the question, How could settlers on another planet set up a self-sustaining environment? Known as Biosphere II, the building will be stocked with 3,800 species of plants, insects, and animals (including eight *Homo sapiens* who will live in the structure for two years).

★ The oldest institution of higher education in Arizona is Arizona State University, founded in 1886.

Arkansas

MUCH OF the business and political establishment in Arkansas has been eager to promote higher education as a tool for social and economic advancement, but all too reluctant to pay for it.

Pushed by Democratic Gov. Bill Clinton, who has made education a top priority, the state has taken important steps toward eliminating duplicative programs and clamping down on abuses in college athletics.

But the General Assembly's hesitancy to accept a tax-increase package, which Mr. Clinton linked to a massive tax-reform plan that would affect influential agricultural interests, could ultimately frustrate the state's efforts to attract or keep top faculty members and improve the low college-going rate of high-school graduates.

Disheartened by low salaries, faculty members are leaving the state. Meanwhile, as colleges are forced to resort to tuition increases, many state higher-education officials fear that more and more students will be discouraged from attending.

The state is still struggling to make better use of its 23 postsecondary vocational institutions.

Some changes, however, have already resulted from the unprecedented attention paid to higher education in the past two years by legislators and a group of the state's wealthiest business leaders, who make up the Arkansas Business Council. As that group recommended, the Arkansas Board of Higher Education, the statewide coordinating board, has been given more authority to eliminate academic programs at the state's 20 two-year and four-year institutions and to approve the procedures that colleges use to evaluate faculty members.

Until recently, the private colleges in the state, many of which are religiously affiliated, have maintained a low political profile. But now they are seeking more recognition and financial grants from the state, a position that could threaten their good relations with the public institutions.

Three of the private colleges are historically black institutions. The fourth historically black college is the state-operated University of Arkansas at Pine Bluff. Arkansas has never attracted black students to college in proportion to the rest of the population, but it is no longer subject to oversight of its desegregation efforts by the U.S. Education Department.

DEMOGRAPHICS

Population: 2,414,000 (Rank: 33)

Age distribution:

Up to 17	27.1%
18 to 24	10.7%
25 to 34	15.7%
35 and older	46.5%

Racial and ethnic distribution:

American Indian	0.6%
Asian	0.3%
Black	16.3%
White	82.7%
Other and unknown	0.1%
Hispanic (may be any race)	0.8%

Educational attainment of adults:

At least 4 years of high school	55.5%
At least 1 to 3 years of college	22.3%
At least 4 years of college	10.8%

Per-capita personal income: $12,219

New high-school graduates in:

1989-90 (estimate)	27,612
1999-2000 (estimate)	26,711

High-school dropout rate: 22.5%

POLITICAL LEADERSHIP

Governor: Bill Clinton (D), term ends 1991

Governor's higher-education adviser: Kathy Van Laningham, State Capitol, Room 207, Little Rock 72201; (501) 682-2345

U.S. Senators: Dale Bumpers (D), term ends 1993; David Pryor (D), term ends 1991

U.S. Representatives:
3 Democrats, 1 Republican
Bill Alexander (D), Beryl Anthony, Jr. (D), John Pa[illegible] Hammerschmidt (R), Tommy F. Robinson (D)

General Assembly: Senate, 31 Democrats, 4 Republicans; House, 88 Democrats, 11 Republicans, 1 Independent

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	10
Public 2-year institutions	10
Private 4-year institutions	10
Private 2-year institutions	8
Total	38

Vocational institutions: 130

Statewide coordinating board:
Board of Higher Education
1220 West Third Street
Little Rock 72201
(501) 371-1441
Paul B. Marion, director

Private-college association:
Independent Colleges of Arkansas
One Riverfront Place, Suite 610
North Little Rock 72114
(501) 378-0843
E. Kearney Dietz, president

Institutions censured by the AAUP:
Phillips County Community College, Southern Arkansas University
University of the Ozarks (governing board)

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	2,882
At private institutions	386

Proportion with tenure:

At public institutions	61.7%
At private institutions	70.7%

Proportion who are women:

At public institutions	30.0%
At private institutions	22.0%

Average pay of full-time professors:

At public 4-year institutions	$30,572
At public 2-year institutions	$23,165
At private 4-year institutions	$26,043
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	53,885
At public 2-year institutions	14,428
At private 4-year institutions	9,025
At private 2-year institutions	1,935
Undergraduate	72,089
First-time freshmen	16,772
Graduate	5,869
Professional	1,315
Total	79,273

Enrollment highlights:

Women	56.2%
Full-time	71.2%
Minority	15.1%
Foreign	2.1%
10-year change in total enrollment	Up 11.3%

Degrees awarded:

Associate	2,263
Bachelor's	7,036
Master's	1,883
Doctorate	112
Professional	319

Residence of new students: State residents make up 85% of all new college students enrolled in Arkansas; 83% of all Arkansas residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	86.5%
Private institutions	13.5%
4-year institutions	78.3%
2-year institutions	21.7%

Proportion of students at largest public institutions who are minority-group members:

University of Arkansas main campus	7.4%
University of Arkansas at Little Rock	13.4%

Proportion of students at largest private institutions who are minority-group members:

Harding University	1.7%
Ouachita Baptist University	7.7%

Test scores: Students averaged 17.9 on the A.C.T., which was taken by 58% of Arkansas's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$931
At public 2-year institutions	$472
At private 4-year institutions	$3,310
At private 2-year institutions	$2,082

Most expensive public institution:
University of Arkansas
at Little Rock, $1,475

Most expensive private institution:
Hendrix College, $6,210

Expenditures:

Public institutions	$528,831,000
Private institutions	$72,321,000

State funds for higher-education operating expenses: $286,399,000

Two-year change: Up 6%

State spending on student aid:
Need-based: $3,910,000; 10,689 awards
Non–need-based: $690,000; 345 awards
Other: $144,000

Salary of chief executive of largest public 4-year campus:
Daniel E. Ferritor, University
of Arkansas main campus:
$83,555 (1989-90)

Total spending on research and development by doctorate-granting universities: $35,529,000

Sources:	
Federal government	34.5%
State and local governments	26.3%
Industry	8.0%
The institution itself	22.6%
Other	8.6%

Continued on Following Page

Arkansas

CONTINUED

Federal spending on education and student aid (selected programs):

Vocational and adult education	$12,598,000
GI Bill	$8,700,000
Pell Grants	$34,498,000

Total federal spending on college-and-university-based research and development: $15,487,000

Selected programs:	
Department of Health and Human Services	$5,043,000
National Science Foundation	$1,382,000
Department of Defense	$320,000
Department of Agriculture	$4,913,000
Department of Energy	$390,000

Largest endowment:

Hendrix College	$42,868,000

Top fund raisers:

Ouachita Baptist University	$5,504,000
Hendrix College	$3,779,000
Harding University	$3,385,000

MISCELLANY

★ Former Sen. J. William Fulbright, the creator of the program of international scholarly and student exchanges bearing his name, served as president of the University of Arkansas from 1939 to 1941.

★ The president of the National Collegiate Athletic Association, Albert M. Witte, is a professor of law at the University of Arkansas at Fayetteville.

★ With a grant from the Winthrop Rockefeller Foundation, Hendrix College in Conway has started a project to encourage "wellness" among students and stimulate the local agricultural economy. In the three-year project the college's food service will plan menus using locally grown and raised foods.

★ The oldest institution of higher education in Arkansas is the University of the Ozarks, founded in 1834. It is affiliated with the United Presbyterian Church, U.S.A.

California

FOR A DECADE, the pressures of a restrictive state budget formula have created headaches for higher-education officials in California. But an 11th-hour agreement between legislative leaders and Gov. George Deukmejian in 1989 may be just the prescription for financial relief.

The bipartisan agreement, which was reached in the final hours of the legislative session, will—if it is approved by voters in June 1990—raise the state's spending cap.

Without a change in the spending formula, higher-education officials said it would be literally impossible for them to obtain the funds they need for expansion.

Altogether, the state's three public postsecondary systems enroll approximately 1.8 million students. The institutions anticipate that by 2005 they will have to find a way to accommodate 524,000 more. The California State University System is building its 20th institution, at San Marcos, because of anticipated growth, and the University of California says it may need three new campuses.

Although the anti-tax movement has been strong in the Golden State, educators are encouraged because the proposed amendment to raise the spending ceiling has the strong support of both the Democrats who lead the state Legislature and the state's Republican Governor.

Furthermore, the Superintendent of Public Instruction, Bill Honig, and the California Teachers Association led a fight last year to win voter approval of Proposition 98, a complicated measure that was the first successful attempt to modify the state spending limit. It exempted public schools and community colleges from the limit and guaranteed them 40 per cent of the state budget, plus the lion's share of any surplus revenue.

The success of Proposition 98 showed higher-education officials that it was possible to crack the spending ceiling. However, it also exacerbated the state spending restrictions that they already faced.

So, shortly after Proposition 98 was approved, officials of the University of California and the California State University System joined a coalition of business leaders, labor representatives, and local government officials to draft a plan that would modify both the spending limit and Proposition 98.

■

Twenty-six years ago, a "master plan" divided public higher education into three separately governed systems: the University of California, the California State University System, and the California Community Colleges.

U.C. is the only doctorate-granting system and offers admission to the top eighth of the state's high-school graduates. Cal State offers bachelor's- and master's-degree programs to students from the top third of high-school graduates. The community colleges have an open-admission policy.

The governance structure of public higher education in California is credited with many strengths and blamed for many weaknesses.

By limiting expensive doctoral and research programs to the U.C. system, California has avoided some of the costly competition between systems that is found in other states.

The University of California's Berkeley and Los Angeles campuses rank among the nation's top research institutions. But some say that the emphasis on research and graduate programs at U.C. has hurt the quality of its undergraduate education.

The community colleges, in theory, provide an inexpensive way for students to prepare for the four-year institutions, but relatively few students actually transfer.

California residents are strong proponents of the state's low-tuition policies. Community-college tuition, for example, is $100 a year. The tuition gap between the state's public and private institutions, however, has widened substantially. Private colleges rely more and more on their own funds to provide student aid, and competition with public institutions in fund raising has increased sharply.

Stanford University is in the midst of a $1.1-billion campaign, and the University of Southern California is winding up a $557-million campaign. In addition to the research institutions, California's private colleges include such liberal-arts colleges as Claremont McKenna, Mills, and Pomona.

California's growing minority populations are presenting new challenges to the college systems. Few black and Hispanic students qualify for enrollment in the selective institutions, and those who do enroll complain about hostile campus environments. Asian-Americans claim that elite universities have imposed informal quotas to limit their enrollment and that the community colleges do not offer needed programs for recent immigrants. Political leaders from all the minority groups closely watch college actions and use their growing clout to challenge them.

DEMOGRAPHICS

Population: 28,607,000 (Rank: 1)

Age distribution:

Up to 17	26.5%
18 to 24	10.6%
25 to 34	19.1%
35 and older	43.8%

Racial and ethnic distribution:

American Indian	1.0%
Asian	5.5%
Black	7.7%
White	77.0%
Other and unknown	8.8%
Hispanic (may be any race)	19.2%

Educational attainment of adults:

At least 4 years of high school	73.5%
At least 1 to 3 years of college	42.0%
At least 4 years of college	19.6%

Per-capita personal income: $18,753

New high-school graduates in:

1989-90 (estimate)	251,461
1999-2000 (estimate)	355,087

High-school dropout rate: 33.9%

POLITICAL LEADERSHIP

Governor: George Deukmejian (R), term ends 1991

Governor's higher-education adviser:
Peter G. Mehas, 1145 State Capitol, Sacramento 95814; (916) 323-0611

U.S. Senators: Alan Cranston (D), term ends 1993; Pete Wilson (R), term ends 1995

U.S. Representatives:
26 Democrats, 18 Republicans, 1 vacancy
Glenn M. Anderson (D), Jim Bates (D), Anthony C. Beilenson (D), Howard L. Berman (D), Douglas H. Bosco (D), Barbara Boxer (D), George E. Brown, Jr. (D), Tom Campbell (R), C. Christopher Cox (R), William E. Dannemeyer (R), Ronald V. Dellums (D), Julian C. Dixon (D), Robert K. Dornan (R), David Dreier (R), Mervyn M. Dymally (D), Don Edwards (D), Vic Fazio (D), Elton Gallegly (R), Augustus F. Hawkins (D), Wally Herger (R), Duncan Hunter (R), Robert J. Lagomarsino (R), Tom Lantos (D), Richard H. Lehman (D), Mel Levine (D), Jerry Lewis (R), Bill Lowery (R), Matthew G. Martinez (D), Robert T. Matsui (D), Alfred A. (Al) McCandless (R), George Miller (D), Norman Y. Mineta (D), Carlos J. Moorhead (R), Ron Packard (R), Leon E. Panetta (D), Charles Pashayan, Jr. (R), Nancy Pelosi (D), Dana Rohrabacher (R), Edward R. Roybal (D), Fortney "Pete" Stark (D), Norman D. Shumway (R), William M. Thomas (R), Esteban Edward Torres (D), Henry A. Waxman (D)

Legislature: Senate, 24 Democrats, 15 Republicans, 1 Independent; Assembly, 46 Democrats, 33 Republicans, 1 vacancy

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	31
Public 2-year institutions	107
Private 4-year institutions	143
Private 2-year institutions	33
Total	314

Vocational institutions: 1,179

Statewide coordinating board:
California Postsecondary Education Commission
1020 12th Street, 3rd Floor
Sacramento 95814
(916) 445-1000
Kenneth B. O'Brien,
executive director

Private-college association:
Association of Independent California Colleges and Universities
1100 11th Street, Suite 205
Sacramento 95814
(916) 446-7626
William J. Moore, president

Institutions censured by the AAUP:
University of Judaism,
Sonoma State University

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	30,583
At private institutions	3,841

Proportion with tenure:

At public institutions	81.0%
At private institutions	57.8%

Proportion who are women:

At public institutions	26.4%
At private institutions	25.6%

Average pay of full-time professors:

At public 4-year institutions	$47,783
At public 2-year institutions	$39,441
At private 4-year institutions	$42,055
At private 2-year institutions	$24,136

STUDENTS

Enrollment:

At public 4-year institutions	503,253
At public 2-year institutions	1,077,279
At private 4-year institutions	196,190
At private 2-year institutions	11,290
Undergraduate	1,588,445
First-time freshmen	277,766
Graduate	170,120
Professional	29,447
Total	1,788,012

Enrollment highlights:

Women	53.6%
Full-time	43.3%
Minority	31.5%
Foreign	3.5%
10-year change in total enrollment	Up 2.6%

Degrees awarded:

Associate	46,483
Bachelor's	90,005
Master's	31,297
Doctorate	4,147
Professional	8,097

Residence of new students: State residents make up 92% of all new college students enrolled in California; 95% of all California residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	92.5%
Private institutions	7.5%
4-year institutions	34.7%
2-year institutions	65.3%

Proportion of students at largest public institutions who are minority-group members:

San Diego State University	20.6%
University of California at Los Angeles	35.5%

Proportion of students at largest private institutions who are minority-group members:

University of Southern California	24.6%
Stanford University	19.5%

Test scores: Students averaged 908 on the S.A.T., which was taken by 46% of California's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,031
At public 2-year institutions	$96
At private 4-year institutions	$8,073
At private 2-year institutions	$4,655

Most expensive public institution:
University of California at San Francisco, $1,857

Most expensive private institution:
Pitzer College, $14,282

Expenditures:

Public institutions	$8,515,440,000
Private institutions	$3,641,630,000

State funds for higher-education operating expenses: $5,011,510,000

Two-year change: Up 11%

State spending on student aid:
Need-based: $144,214,000; 74,688 awards
Non-need-based: None
Other: None

Salary of chief executive of largest public 4-year campus:
Thomas B. Day, San Diego State University: $111,804 (1989-90)

Total spending on research and development by doctorate-granting universities: $1,551,801,000

Sources:	
Federal government	68.5%
State and local governments	2.3%
Industry	4.7%
The institution itself	18.7%
Other	5.8%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$61,517,000
GI Bill	$90,292,000
Pell Grants	$243,731,000

Total federal spending on college-and-university-based research and development: $1,056,860,000

Selected programs:	
Department of Health and Human Services	$555,499,000
National Science Foundation	$174,363,000
Department of Defense	$158,093,000
Department of Agriculture	$13,022,000
Department of Energy	$60,694,000

Largest endowment:

Stanford University	$1,552,025,000

Top fund raisers:

Stanford University	$181,914,000
California Institute of Technology	$97,432,000
University of Southern California	$82,002,000

MISCELLANY

★ The largest academic building in the country, containing some 376,000 square feet of space, is on the campus of the University of California at Berkeley. Built in 1930 at a cost of $1.8-million, the Life Sciences Building will undergo a major renovation this fall at a cost of nearly $70-million.

★ In the 1978 case, *University of California Regents* v. *Allan Bakke*, the U.S. Supreme Court set out the basic principles on the legality of affirmative action. The Court ruled that colleges and universities could consider the racial or ethnic background of an applicant as one factor in admissions decisions. However, the Court said specific racial or ethnic quotas were illegal.

★ In a move that led critics to accuse it of "trashing the classics," Stanford University has overhauled its Western Culture program. The new year-long Cultures, Ideas, and Values program will still focus heavily on Western culture, but will also require students to examine issues relating to sex, race, and class, and to read more works written by women and minority-group members.

★ Stanford University is currently waging the largest fund-raising drive ever attempted by a college or university. It hopes to raise $1.1-billion by October 1991.

★ Don Sneed, associate professor of journalism at San Diego State University, sends videotapes home to parents to tell them—in a 30-minute critique—how students are performing in his journalism classes.

★ The first state-financed faculty research center in the California State University System, the California Agricultural Technological Institute, has been established at Fresno, the heart of California's farm economy.

★ The first doctoral program in gerontology in the United States is being inaugurated this year at the University of Southern California. The program will focus on training people to assume leadership in the policymaking arena.

★ The oldest institutions of higher education in California are the University of the Pacific (an independent institution) and Santa Clara University (a Roman Catholic institution), both founded in 1851.

Colorado

COLORADO RESIDENTS view education as the key to future economic development in their state. As a result, higher education is subject to close scrutiny from the state's political leaders.

But few institutions in Colorado have been subjected to as much review as the Auraria Higher Education Center in downtown Denver, where the University of Colorado at Denver, Metropolitan State College, and the Community College of Denver share classroom and support facilities.

Recently, state lawmakers approved a plan to untangle overlapping responsibilities at Auraria, and the Commission on Higher Education, the state coordinating board, is conducting a study to see how well it serves Denver residents.

The commission is also tracking the academic progress of minority students in the state's six college systems and is evaluating programs designed to improve minority-student-retention rates. Each system has its own governing board.

Colorado colleges have also been active in trying to measure how well they teach students.

Colorado's diverse higher-education system has attracted students from across the nation. The University of Colorado at Boulder is among the nation's most popular public institutions among people attending college outside their home states.

In the past few years, Colorado's public universities, led by Boulder, have tried with considerable success to attract more high-technology research projects to the state. These efforts have been popular with state politicians and viewed with some fear by the states, such as California, that have traditionally dominated the field.

DEMOGRAPHICS

Population: 3,393,000 (Rank: 26)

Age distribution:

Up to 17	26.3%
18 to 24	10.8%
25 to 34	20.2%
35 and older	42.7%

Racial and ethnic distribution:

American Indian	0.7%
Asian	1.2%
Black	3.5%
White	89.7%
Other and unknown	4.9%
Hispanic (may be any race)	11.8%

Educational attainment of adults:

At least 4 years of high school	78.6%
At least 1 to 3 years of college	44.1%
At least 4 years of college	23.0%

Per-capita personal income: $16,463

New high-school graduates in:

1989-90 (estimate)	35,377
1999-2000 (estimate)	43,014

High-school dropout rate: 26.3%

POLITICAL LEADERSHIP

Governor: Roy Romer (D), term ends 1991

Continued on Following Page

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Colorado
CONTINUED

Governor's higher-education adviser: Joel Kohn, State Capitol, Room 136, Denver 80203; (303) 866-2155

U.S. Senators: William L. Armstrong (R), term ends 1991; Timothy E. Wirth (D), term ends 1993

U.S. Representatives:
3 Democrats, 3 Republicans
Hank Brown (R), Ben Nighthorse Campbell (D), Joel Hefley (R), Dan Schaefer (R), Patricia Schroeder (D), David E. Skaggs (D)

General Assembly: Senate, 11 Democrats, 24 Republicans; House, 26 Democrats, 39 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	13
Public 2-year institutions	15
Private 4-year institutions	17
Private 2-year institutions	9
Total	54

Vocational institutions: 134

Statewide coordinating board:
Commission on Higher Education
Colorado History Museum
1300 Broadway, 2nd Floor
Denver 80203
(303) 866-4034
David A. Longanecker,
executive director

Private-college association:
Independent Higher Education
of Colorado
387 Denver Club Building
518 17th Street
Denver 80202
(303) 571-5559
Toni Worcester, executive director

Institutions censured by the AAUP:
Colorado School of Mines,
University of Northern Colorado

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	4,721
At private institutions	723

Proportion with tenure:

At public institutions	73.1%
At private institutions	65.6%

Proportion who are women:

At public institutions	21.1%
At private institutions	27.1%

Average pay of full-time professors:

At public 4-year institutions	$36,397
At public 2-year institutions	$36,174
At private 4-year institutions	$35,139
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	106,571
At public 2-year institutions	55,023
At private 4-year institutions	17,708
At private 2-year institutions	4,281
Undergraduate	158,146
First-time freshmen	30,026
Graduate	22,434
Professional	3,003
Total	183,583

Enrollment highlights:

Women	52.7%
Full-time	59.6%
Minority	11.9%
Foreign	2.8%
10-year change in total enrollment	Up 19.2%

Degrees awarded:

Associate	5,756
Bachelor's	15,218
Master's	4,088
Doctorate	636
Professional	853

Residence of new students: n/a

Proportion of all minority students who enroll at:

Public institutions	91.1%
Private institutions	8.9%
4-year institutions	48.0%
2-year institutions	52.0%

Proportion of students at largest public institutions who are minority-group members:

University of Colorado at Boulder	8.6%
Colorado State University	6.8%

Proportion of students at largest private institutions who are minority-group members:

University of Denver	9.7%
Regis College	9.0%

Test scores: Students averaged 19.7 on the A.C.T., which was taken by 64% of Colorado's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,482
At public 2-year institutions	$623
At private 4-year institutions	$7,913
At private 2-year institutions	$586

Most expensive public institution: Colorado School of Mines, $3,672

Most expensive private institution: Colorado College, $11,470

Expenditures:

Public institutions	$1,057,558,000
Private institutions	$160,193,000

State funds for higher-education operating expenses: $475,181,000

Two-year change: Up 12%

State spending on student aid:
Need-based: $10,222,000; 14,005 awards
Non-need-based: $8,999,000; 10,248 awards
Other: None

Salary of chief executive of largest public 4-year campus:
James N. Corbridge, Jr., University of Colorado at Boulder: $115,000 (1989-90)

Total spending on research and development by doctorate-granting universities: $185,699,000

Sources:

Federal government	73.2%
State and local governments	4.7%
Industry	4.7%
The institution itself	9.5%
Other	7.8%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$16,210,000
GI Bill	$20,271,000
Pell Grants	$54,379,000

Total federal spending on college-and-university-based research and development: $129,450,000

Selected programs:

Department of Health and Human Services	$54,935,000
National Science Foundation	$23,017,000
Department of Defense	$14,180,000
Department of Agriculture	$4,204,000
Department of Energy	$5,510,000

Largest endowment:

Colorado College	$109,159,000

Top fund raisers:

University of Colorado	$39,117,000
Colorado State University	$13,224,000
University of Denver	$11,761,000

MISCELLANY

★ The Naropa Institute in Boulder is the country's only college based on Buddhism.

★ Regis College in Denver sold one of its campuses to Teikyo University of Japan in January 1989. Beginning in 1990, Teikyo is expected to send several hundred students to the campus, to be taught by Regis faculty members. Three Teikyo faculty members will teach 50 Regis students at the School of Pacific Studies, to be established on the campus.

★ Denver is the home of two national higher-education associations dealing with state governments. The Education Commission of the States is a group of governors, educators, and legislators, and the State Higher Education Executive Officers represent the directors of state coordinating boards.

★ Two national sports associations—the National Junior College Athletic Association and the College Football Association, which represents 64 big-time football-playing universities, have their headquarters in Colorado.

★ The oldest institution of higher education in Colorado is the University of Denver, an independent institution founded in 1864.

Connecticut

CONNECTICUT is a case study of how changes in America's demography and economy affect higher education, particularly in the East.

The state has an early and substantial tradition of private higher education, dating from 1701 and the founding of Yale University. It also boasts other well-known private institutions—including Connecticut College, Trinity College, and Wesleyan University.

That tradition, combined with the fiscal conservatism of the state, tended to limit the extensive development of a public-college system.

More recently, the state has been devoting more resources and energy to public education, and to serving older students and those who are members of minority groups. Connecticut has an unusually high number of those "non-traditional students," who nationally also make up the fastest-growing segment of the higher-education market.

Long reliant on its manufacturing-based economy, Connecticut is also grappling with ways to use higher education to attract and develop new, technology-oriented industries. The state has just revamped the management of its five two-year technical colleges, which had been criticized for inefficiency and for failing to teach skills needed by emerging industries.

Like public colleges around the country, state institutions in Connecticut have also become more aggressive in their pursuit of private sources of funds through college-related private foundations. But reports of questionable spending practices by some of those foundations have generated some damaging negative publicity and new rules governing spending.

The influence of private colleges still affects policies today. Connecticut offers generous grants for private-college students and financial subsidies to cities and towns where the tax base is reduced by the presence of colleges.

The Board of Governors for Higher Education serves as the statewide coordinating board, with powers to set wide-ranging education policies, including a recent demand that all public colleges develop programs to assess what college students learn.

With the recent legislative action, all of the state's two-year institutions are now supervised by a single governing board called the Board of Trustees of Technical and Community Colleges. The University of Connecticut and the Connecticut state-college system are governed by separate boards.

DEMOGRAPHICS

Population: 3,257,000 (Rank: 28)

Age distribution:

Up to 17	23.5%
18 to 24	10.7%
25 to 34	16.8%
35 and older	49.0%

Racial and ethnic distribution:

American Indian	0.2%
Asian	0.7%
Black	7.0%
White	90.5%
Other and unknown	1.7%
Hispanic (may be any race)	4.0%

Educational attainment of adults:

At least 4 years of high school	70.3%
At least 1 to 3 years of college	35.9%
At least 4 years of college	20.7%

Per-capita personal income: $23,059

New high-school graduates in:

1989-90 (estimate)	32,797
1999-2000 (estimate)	33,229

High-school dropout rate: 19.5%

POLITICAL LEADERSHIP

Governor: William A. O'Neill (D), term ends 1991

Governor's higher-education adviser: David J. McQuade, State Capitol, Hartford 06106; (203) 566-4840

U.S. Senators: Christopher J. Dodd (D), term ends 1993; Joe Lieberman (D), term ends 1995

U.S. Representatives:
3 Democrats, 3 Republicans
Sam Gejdenson (D), Nancy L. Johnson (R), Barbara B. Kennelly (D), Bruce A. Morrison (D), John G. Rowland (R), Christopher Shays (R)

General Assembly: Senate, 23 Democrats, 13 Republicans; House, 88 Democrats, 63 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	7
Public 2-year institutions	17
Private 4-year institutions	21
Private 2-year institutions	4
Total	49

Vocational institutions: 144

Statewide coordinating board:
Board of Governors of
Higher Education
61 Woodland Street
Hartford 06105
(203) 566-5766
Norma Foreman Glasgow,
commissioner of higher education

Private-college association:
Connecticut Conference of
Independent Colleges
36 Gillett Street
Hartford 06105
(203) 522-0271
Gloria F. Ragosta, vice-president

Institutions censured by the AAUP:
None

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	3,039
At private institutions	2,591

Proportion with tenure:

At public institutions	78.2%
At private institutions	58.6%

Proportion who are women:

At public institutions	26.3%
At private institutions	24.9%

Average pay of full-time professors:

At public 4-year institutions	$44,374
At public 2-year institutions	$35,428
At private 4-year institutions	$40,907
At private 2-year institutions	$23,855

STUDENTS

Enrollment:

At public 4-year institutions	62,024
At public 2-year institutions	40,537

At private 4-year institutions	58,090
At private 2-year institutions	1,731
Undergraduate	128,126
First-time freshmen	30,244
Graduate	30,893
Professional	3,363
Total	162,382

Enrollment highlights:

Women	55.8%
Full-time	50.7%
Minority	9.4%
Foreign	2.4%
10-year change in total enrollment	Up 8.5%

Degrees awarded:

Associate	4,842
Bachelor's	13,499
Master's	5,755
Doctorate	533
Professional	947

Residence of new students: State residents make up 81% of all new college students enrolled in Connecticut; 68% of all Connecticut residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	66.8%
Private institutions	33.2%
4-year institutions	61.3%
2-year institutions	38.7%

Proportion of students at largest public institutions who are minority-group members:

University of Connecticut	7.8%
Central Connecticut State University	6.0%

Proportion of students at largest private institutions who are minority-group members:

Yale University	13.3%
University of Hartford	5.7%

Test scores: Students averaged 908 on the S.A.T., which was taken by 78% of Connecticut's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,527
At public 2-year institutions	$573
At private 4-year institutions	$8,534
At private 2-year institutions	$7,367

Most expensive public institution: University of Connecticut, $2,631

Most expensive private institution: Wesleyan University, $14,610

Expenditures:

Public institutions	$562,696,000
Private institutions	$836,949,000

State funds for higher-education operating expenses: $467,385,000

Two-year change: Up 22%

State spending on student aid:
Need-based: $21,149,000; 17,500 awards
Non–need-based: $200,000; 20 awards
Other: $9,333,000

Salary of chief executive of largest public 4-year campus: John T. Casteen, III, University of Connecticut: $127,000 (1989-90)

Total spending on research and development by doctorate-granting universities: $230,790,000

Sources:

Federal government	67.5%
State and local governments	1.1%
Industry	4.0%
The institution itself	17.2%
Other	10.2%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$20,655,000
GI Bill	$4,613,000
Pell Grants	$27,910,000

Total federal spending on college-and-university-based research and development: $174,433,000

Selected programs:

Department of Health and Human Services	$130,947,000
National Science Foundation	$13,460,000
Department of Defense	$12,213,000
Department of Agriculture	$1,839,000
Department of Energy	$8,429,000

Largest endowment:

Yale University	$2,055,871,000

Top fund raisers:

Yale University	$121,239,000
University of Connecticut	$20,468,000
Wesleyan University	$8,221,000

MISCELLANY

★ The University of Hartford operates the Museum of American Political Life, the showpiece of which is a re-creation of a 19th-century political torchlight parade featuring 17 life-size mannequins.

★ Yale Law School has offered to repay the student loans of graduates who choose to work in fields that pay modest salaries, including academe, government, and non-profit public interest groups.

★ Trustees of Trinity College, which was founded in 1823, decided to locate the institution in Hartford after local workers and shopkeepers pledged $4,000 in goods and services to add to the $16,000 already promised to the college by individuals and the city.

★ Yale University is the oldest institution of higher education in Connecticut. It was founded in 1701. In 1831, it had the distinction of running the nation's first endowment drive, which raised $107,000.

Delaware

DESPITE its small size, Delaware has a well-articulated system of higher education, with two public four-year institutions—the University of Delaware and Delaware State University—and a three-campus community-college system.

The presidents of all of those institutions joined forces in the 1989 legislative session and lobbied for an increase in state funds for student aid. A byproduct of their effort was that for the first time since the state program was established, Delaware State College, a historically black institution, received tuition assistance for its low-income students.

Delaware is one of the states included in the Adams case, the lawsuit filed by black students and parents in 1970 to end segregation in higher education. The Education Department has declared the state to be close to compliance with federal anti-bias laws.

The economic fate of Delaware's

Continued on Following Page

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Delaware

CONTINUED

public institutions is linked closely to the state economy. That in turn is linked to the national economy, since many major companies are incorporated in Delaware. Since the stock-market upheavals in Oc[illegible] 987, the watchword among [illegible], has been caution, and [illegible] N. Castle, a Republi[illegible] n trying to persuade mor[illegible] ational corporations to call Delaware home.

Throughout much of the state's history the dominant corporation has been E. I. du Pont de Nemours & Company, a significant contributor to the state's higher-education system. The company's role has sometimes been a source of controversy, with critics contending that the company and members of the du Pont family have had too much influence.

Separate governing boards control the university, the state college, and the community colleges. The statewide coordinating board, the Delaware Postsecondary Education Commission, has limited powers.

DEMOGRAPHICS

Population: 658,000 (Rank: 47)

Age distribution:

Up to 17	25.2%
18 to 24	11.4%
25 to 34	18.5%
35 and older	45.0%

Racial and ethnic distribution:

American Indian	0.2%
Asian	0.8%
Black	16.1%
White	82.1%
Other and unknown	0.8%
Hispanic (may be any race)	1.6%

Educational attainment of adults:

At least 4 years of high school	68.6%
At least 1 to 3 years of college	32.4%
At least 4 years of college	17.5%

Per-capita personal income: $17,661

New high-school graduates in:

1989-90 (estimate)	7,593
1999-2000 (estimate)	7,423

High-school dropout rate: 29.9%

POLITICAL LEADERSHIP

Governor: Michael Newbold Castle (R), term ends 1993

Governor's higher-education adviser: Helen Foss, 820 North French Street, Wilmington 19801; (302) 571-3210

U.S. Senators: Joseph R. Biden, Jr. (D), term ends 1991; William V. Roth, Jr. (R), term ends 1995

U.S. Representative:
1 Democrat
Thomas R. Carper (D)

General Assembly: Senate, 13 Democrats, 8 Republicans; House, 18 Democrats, 23 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	2
Public 2-year institutions	3
Private 4-year institutions	5
Private 2-year institutions	0
Total	10

Vocational institutions: 23

Statewide coordinating board:
Delaware Postsecondary Education Commission
820 French Street
Wilmington 19801
(302) 571-3240
John F. Corrozi, executive director

Private-college association:
None

Institutions censured by the AAUP:
None

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	1,192
At private institutions	55

Proportion with tenure:

At public institutions	69.2%
At private institutions	52.3%

Proportion who are women:

At public institutions	31.1%
At private institutions	41.8%

Average pay of full-time professors:

At public 4-year institutions	$37,624
At public 2-year institutions	$29,661
At private 4-year institutions	$29,951
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	21,456
At public 2-year institutions	8,191
At private 4-year institutions	7,003
At private 2-year institutions	0
Undergraduate	32,711
First-time freshmen	7,186
Graduate	2,910
Professional	1,029
Total	36,650

Enrollment highlights:

Women	57.0%
Full-time	61.5%
Minority	13.6%
Foreign	1.9%
10-year change in total enrollment	Up 18.4%

Degrees awarded:

Associate	1,153
Bachelor's	3,246
Master's	586
Doctorate	96
Professional	245

Residence of new students: State residents make up 61% of all new college students enrolled in Delaware; 70% of all Delaware residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	56.5%
Private institutions	43.5%
4-year institutions	72.2%
2-year institutions	27.8%

Proportion of students at largest public institutions who are minority-group members:

University of Delaware	5.8%
Delaware Technical Community College Stanton–Wilmington	15.7%

Proportion of students at largest private institutions who are minority-group members:

Goldey Beacom College	13.8%
Wilmington College	23.8%

Test scores: Students averaged 899 on the S.A.T., which was taken by 67% of Delaware's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$906
At public 2-year institutions	$932
At private 4-year institutions	$2,794
At private 2-year institutions	n/a

Most expensive public institution:
University of Delaware, $2,990

Most expensive private institution:
Wesley College, $6,425

Expenditures:

Public institutions	$229,377,000
Private institutions	$15,855,000

State funds for higher-education operating expenses: $107,516,000

Two-year change: Up 11%

State spending on student aid:
Need-based: $1,092,000; 1,259 awards
Non–need-based: $199,000; 198 awards
Other: $92,000

Salary of chief executive of largest public 4-year campus:
E. Arthur Trabant (interim), University of Delaware; salary n/a

Total spending on research and development by doctorate-granting universities: $31,681,000

Sources:

Federal government	43.1%
State and local governments	6.3%
Industry	11.5%
The institution itself	31.9%
Other	7.1%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$6,889,000
GI Bill	$1,401,000
Pell Grants	$26,578,000

Total federal spending on college-and-university-based research and development: $12,067,000

Selected programs:

Department of Health and Human Services	$2,343,000
National Science Foundation	$3,156,000
Department of Defense	$3,681,000
Department of Agriculture	$1,608,000
Department of Energy	$454,000

Largest endowment:
University of Delaware $301,224,000

Top fund raisers:

University of Delaware	$13,182,000
Wesley College	$348,000
Delaware State College	$170,000

MISCELLANY

★ The General Assembly, Delaware's legislature, granted a charter for the University of Delaware, then known as Newark College, in 1833, but the institution traces its history to 1743, when Francis Alison, a Presbyterian minister, opened a "free school" about eight miles from the site of the present campus.

★ Wesley College is offering local youths the opportunity to enroll free in courses during their senior year in high school.

★ The oldest higher-education institution in the state is the University of Delaware, founded in 1833.

District of Columbia

It is hard to generalize about higher education in the District of Columbia because the District's colleges and universities are so different from one another.

The University of the District of Columbia is an open-admissions institution that has been hurt by a series of scandals, inadequate financial support, and faculty-administration discord. U.D.C. primarily serves students who attended the District public schools, which are themselves seriously troubled.

For the last two years, some politicians have urged U.D.C. to create a community college to educate the many students who enroll without basic college skills. So far, the college has not been established.

Private higher education in the District includes Georgetown University, a Roman Catholic institution that celebrated its bicentennial in 1989. Other prominent private institutions include American University, Catholic University of America, and George Washington University.

All of them have developed extensive programs in history and political science to take advantage of their access to the nation's political center.

The universities are also well regarded in other areas. Georgetown and George Washington, for example, both have highly competitive medical schools.

The private colleges are not without their problems. Catholic and Georgetown have been the sites of conflicts over the appropriate degree to which Roman Catholic Church theology should govern campus policies. George Washington and Georgetown have had rocky relations with the District government because of complaints over student behavior and efforts to expand their campuses.

Two other private institutions in the District—Gallaudet and Howard Universities—receive substantial operating support from the federal government.

Gallaudet, an institution for the deaf, has gained national attention under its first deaf president, I. King Jordan. Howard, a prominent black university, was rocked by campus protests this year and is currently searching for a president to replace James E. Cheek, who announced his resignation in the wake of the protests—after 20 years on the job.

The only public higher-education board in the District is the Board of Trustees of U.D.C. But Mayor Marion Barry has an office that acts rather like a state coordinating board.

DEMOGRAPHICS

Population: 615,000 (Rank: 48)

Age distribution:

Up to 17	22.4%
18 to 24	10.5%
25 to 34	20.4%
35 and older	46.8%

Racial and ethnic distribution:

American Indian	0.2%
Asian	1.1%
Black	70.3%
White	27.4%
Other and unknown	1.1%
Hispanic (may be any race)	2.8%

Educational attainment of adults:

At least 4 years of high school	67.1%
At least 1 to 3 years of college	41.5%
At least 4 years of college	27.5%

Per-capita personal income: $21,389

New high-school graduates in:

1989-90 (estimate)	4,337
1999-2000 (estimate)	4,048

High-school dropout rate: 44.5%

POLITICAL LEADERSHIP

Mayor: Marion S. Barry, Jr.

Mayor's higher-education adviser: Rolin Sidwell, District Building, Room 400, Washington 20004; (202) 727-0248

U.S. Senators: None

U.S. Representatives: Delegate Walter E. Fauntroy (D); non-voting

Legislature: n/a

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	2
Public 2-year institutions	0
Private 4-year institutions	16
Private 2-year institutions	0
Total	18

Vocational institutions: 38

Statewide coordinating board:
Office of Postsecondary Education Research and Assistance
1331 H Street, N.W., No. 600
Washington 20005
(202) 727-3685
Eloise C. Turner, chief

Private-college association:
Consortium of Universities of the Washington Metropolitan Area
1717 Massachusetts Avenue, N.W., Suite 101
Washington 20036
(202) 265-1313
Monte P. Shepler, president

Institutions censured by the AAUP:
None

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	548
At private institutions	3,061

Proportion with tenure:

At public institutions	n/a
At private institutions	62.0%

Proportion who are women:

At public institutions	38.3%
At private institutions	31.0%

Average pay of full-time professors:

At public 4-year institutions	$36,743
At public 2-year institutions	n/a
At private 4-year institutions	$39,578
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	10,851
At public 2-year institutions	0
At private 4-year institutions	66,715
At private 2-year institutions	0
Undergraduate	46,267
First-time freshmen	9,705
Graduate	22,712
Professional	8,587
Total	77,566

Enrollment highlights:

Women	51.7%
Full-time	61.5%
Minority	39.7%
Foreign	11.3%
10-year change in total enrollment	Down 7.7%

Degrees awarded:

Associate	369
Bachelor's	6,711
Master's	5,062
Doctorate	475
Professional	2,681

Residence of new students: Residents make up 22% of all new college students enrolled in the District of Columbia; 58% of all District of Columbia residents who attend college do so in the District.

Proportion of all minority students who enroll at:

Public institutions	38.8%
Private institutions	61.2%
4-year institutions	100.0%
2-year institutions	0.0%

Proportion of students at largest public institution who are minority-group members:

University of the District of Columbia	95.0%

Proportion of students at largest private institutions who are minority-group members:

George Washington University	12.0%
Georgetown University	13.5%

Test scores: Students averaged 839 on the S.A.T., which was taken by 63% of the District of Columbia's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$634
At public 2-year institutions	n/a
At private 4-year institutions	$7,128
At private 2-year institutions	n/a

Most expensive public institution:
University of the District of Columbia, $664

Most expensive private institution:
Georgetown University, $13,366

Expenditures:

Public institutions	$88,462,000
Private institutions	$1,307,377,000

State funds for higher-education operating expenses: n/a

Two-year change: n/a

State spending on student aid:
Need-based: $1,075,000; 780 awards
Non–need-based: None
Other: None

Salary of chief executive of largest public 4-year campus:
Rafael L. Cortada, University of the District of Columbia: $88,065 (1989-90)

Total spending on research and development by doctorate-granting universities: $85,470,000

Sources:	
Federal government	73.7%
Local government	0.6%
Industry	4.9%
The institution itself	13.6%
Other	7.2%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$10,551,000
GI Bill	$989,000
Pell Grants	$19,875,000

Total federal spending on college-and-university-based research and development: $61,057,000

Selected programs:	
Department of Health and Human Services	$37,311,000
National Science Foundation	$4,823,000
Department of Defense	$6,495,000
Department of Agriculture	$742,000
Department of Energy	$990,000

Largest endowment:

George Washington University	$251,502,000

Top fund raisers:

Georgetown University	$29,037,000
George Washington University	$16,384,000
Howard University	$10,524,000

MISCELLANY

★ Hundreds of students at Howard University staged a three-day sit-in at the university's administration building in 1989 to oppose the naming of Lee Atwater, chairman of the Republican National Committee, to the institution's board of trustees. Mr. Atwater resigned and Howard officials agreed to other student demands to improve campus security and to make dormitories more livable.

★ George Washington University plans to give $7-million in scholarships to District of Columbia public-school students admitted to the university between 1990 and 2000. The institution expects to award 50 such scholarships during the 10-year period. It estimates that total costs will average about $35,000 per student per year over the decade.

★ In a case that pitted a professor's right to academic freedom against the right of the Catholic Church to decide who can teach its theology, a District of Columbia Superior Court judge upheld in 1989 the right of Catholic University to bar the Rev. Charles E. Curran, a tenured professor, from teaching theology at the university.

★ The Library of Congress, in Washington, has more volumes—22 million—than any other library in the country.

★ The oldest institution of higher education in the District of Columbia is Georgetown University, a Roman Catholic institution founded in 1789. First called Georgetown College, it became a university in 1815 when it received the first university charter granted by the federal government. Georgetown's colors are blue and gray, representing the unification of the North and South after the Civil War.

Sources and notes appear on Page 96

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Florida

THE BIGGEST ISSUE for higher education in Florida for the past decade is also the issue that poses the greatest challenge for the next one: growth.

Colleges and universities are struggling to keep up with the population boom, but many fear they will be deprived of the money they need unless state politicians shed their resistance to new taxes. Already, despite generous budget increases in recent years, the universities have been forced to turn away many highly qualified students for admission as freshmen or sophomores. That trend is expected to add to the enrollment pressures at the state's 28 community colleges.

The geographic pattern and ethnic mix of that growth also present some special problems for public higher education.

The oldest and largest public universities in Florida are in the northern part of the state. That has been a source of great irritation to political leaders in central and south Florida, who say the state is not doing enough to meet the demands of their swelling populations by helping to expand the newer institutions in their regions. The irritation is felt most keenly in southeast Florida.

Although the state Cabinet serves as the top education-policy-making body, members of the Florida Legislature are known for their readiness to become involved in higher-education matters.

Politics have also come into play over the state's much-debated basic-skills test, which is a prerequisite for graduation from a public community college or for enrollment in junior- or senior-level courses. Some higher-education and political leaders fear that when a new passing grade is instituted this year as scheduled, a disproportionate number of black and Hispanic students will fail.

Community-college leaders have been the most vocal opponents of the new cutoff scores. Officials at Miami-Dade Community College, which is known for its many programs for non-traditional students, have been especially worried.

The Legislature, meanwhile, has also been very supportive of important financial initiatives for new buildings and endowed professorships at the universities, which are critical if the system is to achieve the national reputation to which it aspires.

Such initiatives as the Eminent Scholars program, in which the state provides money based on the level of private contributions, have created some resentment among private colleges. Those institutions, most of which are young and have small endowments, say the aggressive, state-assisted fund raising by the public universities is cutting into their own efforts.

The Postsecondary Education Planning Commission is the statewide coordinating board, but most power resides with the Legislature and the Board of Regents. There is also a State Board of Community Colleges, but the institutions are primarily run by their own boards of trustees. The Commissioner of Education, an elected member of the Cabinet, has a seat on the Board of Regents and the community-college board.

DEMOGRAPHICS

Population: 12,535,000 (Rank: 4)

Age distribution:

Up to 17	22.7%
18 to 24	9.6%
25 to 34	15.6%
35 and older	52.1%

Racial and ethnic distribution:

American Indian	0.3%
Asian	0.6%
Black	13.8%
White	84.0%
Other and unknown	1.3%
Hispanic (may be any race)	8.8%

Educational attainment of adults:

At least 4 years of high school	66.7%
At least 1 to 3 years of college	31.6%
At least 4 years of college	14.9%

Per-capita personal income: $16,603

New high-school graduates in:

1989-90 (estimate)	102,114
1999-2000 (estimate)	128,944

High-school dropout rate: 41.4%

POLITICAL LEADERSHIP

Governor: Bob Martinez (R), term ends 1991

Governor's higher-education adviser: Myrtle Bailey, State Capitol, Tallahassee 32399; (904) 488-4512

U.S. Senators: Bob Graham (D), term ends 1993; Connie Mack (R), term ends 1995

U.S. Representatives:
8 Democrats, 10 Republicans, 1 vacancy
Charles E. Bennett (D), Michael Bilirakis (R), Dante B. Fascell (D), Sam Gibbons (D), Porter J. Goss (R), Bill Grant (R), Earl Hutto (D), Andy Ireland (R), Craig T. James (R), Harry Johnston (D), William Lehman (D), Tom Lewis (R), Bill McCollum (R), Bill Nelson (D), E. Clay Shaw, Jr. (R), Lawrence J. Smith (D), Cliff Stearns (R), C.W. Bill Young (R)

Legislature: Senate, 23 Democrats, 17 Republicans; House, 73 Democrats, 47 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	9
Public 2-year institutions	29
Private 4-year institutions	43
Private 2-year institutions	13
Total	94

Vocational institutions: 373

Statewide coordinating board:
Postsecondary Education
Planning Commission
Knott Building, Room 304
Tallahassee 32399
(904) 488-7894
William Proctor, executive director

Private-college association:
Independent Colleges and Universities
of Florida
5005 Central Avenue
St. Petersburg 33710
(813) 321-2258
George P. Russell, executive director

Institutions censured by the AAUP:
None

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	10,772
At private institutions	2,521

Proportion with tenure:

At public institutions	67.4%
At private institutions	51.0%

Proportion who are women:

At public institutions	29.7%
At private institutions	24.2%

Average pay of full-time professors:

At public 4-year institutions	$37,552
At public 2-year institutions	$31,066
At private 4-year institutions	$32,121
At private 2-year institutions	$21,980

STUDENTS

Enrollment:

At public 4-year institutions	150,916
At public 2-year institutions	254,376
At private 4-year institutions	80,590
At private 2-year institutions	4,082
Undergraduate	438,128
First-time freshmen	75,808
Graduate	44,604
Professional	7,232
Total	489,964

Enrollment highlights:

Women	54.2%
Full-time	47.2%
Minority	21.7%
Foreign	3.1%
10-year change in total enrollment	Up 34.4%

Degrees awarded:

Associate	29,524
Bachelor's	31,430
Master's	9,044
Doctorate	1,109
Professional	2,105

Residence of new students: State residents make up 83% of all new college students enrolled in Florida; 83% of all Florida residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	78.8%
Private institutions	21.2%
4-year institutions	46.1%
2-year institutions	53.9%

Proportion of students at largest public institutions who are minority-group members:

Miami–Dade Community College	66.0%
University of Florida	12.9%

Proportion of students at largest private institutions who are minority-group members:

University of Miami	27.8%
Embry–Riddle Aeronautical University	11.9%

Test scores: Students averaged 890 on the S.A.T., which was taken by 53% of Florida's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,055
At public 2-year institutions	$608
At private 4-year institutions	$1,367
At private 2-year institutions	n/a

Most expensive public institution:
New College of the University of South Florida, $1,419

Most expensive private institution:
Rollins College, $11,950

Expenditures:

Public institutions	$1,782,180,000
Private institutions	$723,270,000

State funds for higher-education operating expenses: $1,474,345,000

Two-year change: Up 15%

State spending on student aid:
Need-based: $19,626,000; 19,016 awards
Non–need-based: $29,204,000; 21,036 awards
Other: $341,000

Salary of chief executive of largest public 4-year campus:
Robert A. Bryan (interim), University of Florida: $125,939 (1989-90)

Total spending on research and development by doctorate-granting universities: $252,303,000

Sources:

Federal government	51.1%
State and local governments	5.3%
Industry	8.2%
The institution itself	28.7%
Other	6.7%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$27,682,000
GI Bill	$42,926,000
Pell Grants	$167,042,000

Total federal spending on college-and-university-based research and development: $148,867,000

Selected programs:

Department of Health and Human Services	$73,251,000
National Science Foundation	$20,998,000
Department of Defense	$18,728,000
Department of Agriculture	$7,063,000
Department of Energy	$15,405,000

Largest endowment:

University of Florida Foundation	$17[illegible]60,000

Top fund raisers:

University of Miami	$57,365,000
University of Florida	$43,710,000
Florida State University	$13,911,000

MISCELLANY

★ The University of Miami has a North-South Center, where research is done on relations between the United States and Latin America. The center has received $1.8-million from the federal government for its "Info-South" data base, which includes abstracts of articles about Latin America from several hundred journals, newspapers, and magazines.

★ Miami-Dade Community College is believed to be the first community college to establish endowed chairs for its faculty members.

★ With 5,148 students from abroad, Miami-Dade Community College enrolls more foreign students than any other U.S. institution.

★ New College offers an intensive liberal-arts undergraduate education in which students work closely with faculty members in seminars and tutorials and do not receive grades. Located in Sarasota, the college was founded in 1960 as a private institution, but in 1975 became a unit of the public University of South Florida.

★ In 1924, under the leadership of professor Riley Jones, the Rollins College physics department established Central Florida's first radio station, WDBO—"Way Down By Orlando."

★ The Florida Sinkhole Research Institute is located at the University of Central Florida. Researchers there study ways for city planners, builders, and others to deal with sinkholes.

★ The oldest institution of higher education in the state is, depending on whom you ask, either Florida State University, founded in 1851 as Seminary West of the Suwannee, or the University of Florida, founded in 1853. The seminary underwent dramatic changes in 1857, when it became Florida State and held its first college-level classes.

Georgia

GEORGIA is home to some of the nation's finest black colleges, and they have been thriving in recent years.

Helped by major gifts and a rising applicant pool, private institutions such as Morehouse and Spelman Colleges have been gaining in national stature. With President Bush devoting much of his higher-education agenda to black colleges, these institutions are poised to take advantage of the attention. A particular high point was when the President tapped Louis W. Sullivan, president of the Morehouse School of Medicine, as Secretary of Health and Human Services.

Private higher education in the state is by no means limited to black colleges. Georgia is home to many small, church-related colleges. In addition, Emory University has nationally respected research programs and attracts much notice for the programs sponsored by the Jimmy Carter Presidential Library.

For public higher education, the

past few years have seen both successes and disappointments. Led by the Board of Regents, the governing and coordinating board for the state colleges, many of the institutions have raised admissions standards, attracted top faculty members, and started new research programs.

State financial support has been good, and a series of reforms for the state's public schools have produced students who are better prepared for college than many of their predecessors.

The last year, however, brought bad news for the regents. They lost a lengthy legal battle over whether presidential searches were covered by the state's open-records law. Despite protests that releasing information on the searches would discourage some people from applying, the courts ordered the system to make such materials available to the press.

Racial issues have also continued to be difficult for the university system. Although the Education Department this year declared that Georgia public colleges are no longer segregated, black students still do not enroll or graduate in proportion to the population as a whole.

DEMOGRAPHICS

Population: 6,524,000 (Rank: 11)

Age distribution:

Up to 17	28.0%
18 to 24	11.5%
25 to 34	17.7%
35 and older	42.7%

Racial and ethnic distribution:

American Indian	0.2%
Asian	0.5%
Black	26.8%
White	72.3%
Other and unknown	0.2%
Hispanic (may be any race)	1.1%

Educational attainment of adults:

At least 4 years of high school	56.4%
At least 1 to 3 years of college	27.9%
At least 4 years of college	14.6%

Per-capita personal income: $15,260

New high-school graduates in:

1989-90 (estimate)	62,692
1999-2000 (estimate)	74,277

High-school dropout rate: 37.5%

POLITICAL LEADERSHIP

Governor: Joe Frank Harris (D), term ends 1991

Governor's higher-education adviser: Nellie Hoenes, State Capitol, Room 111, Atlanta 30334; (404) 656-1713

U.S. Senators: Wyche Fowler, Jr. (D), term ends 1993; Sam Nunn (D), term ends 1991

U.S. Representatives:
9 Democrats, 1 Republicans
Doug Barnard, Jr. (D), George (Buddy) Darden (D), Newt Gingrich (R), Charles Hatcher (D), Ed Jenkins (D), Ben Jones (D), John Lewis (D), Richard Ray (D), J. Roy Rowland (D), Robert Lindsay Thomas (D)

General Assembly: Senate, 45 Democrats, 11 Republicans; House, 144 Democrats, 36 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	19
Public 2-year institutions	30
Private 4-year institutions	30
Private 2-year institutions	16
Total	95

Vocational institutions: 153

Statewide coordinating board:
Board of Regents
University System of Georgia
244 Washington Street, S.W.
Atlanta 30334
(404) 656-2203
H. Dean Propst, chancellor

Private-college association:
Association of Private Colleges
and Universities in Georgia
First Atlanta Tower, Suite 2129
Atlanta 30383
(404) 525-9831
Cheatham E. Hodges, Jr.,
executive director

Institutions censured by the AAUP: None

Institution under NCAA sanctions: Georgia Institute of Technology

FACULTY MEMBERS

Full-time faculty members:

At public institutions	6,296
At private institutions	1,982

Proportion with tenure:

At public institutions	62.2%
At private institutions	46.4%

Proportion who are women:

At public institutions	30.1%
At private institutions	32.3%

Average pay of full-time professors:

At public 4-year institutions	$35,342
At public 2-year institutions	$28,241
At private 4-year institutions	$31,335
At private 2-year institutions	$21,329

STUDENTS

Enrollment:

At public 4-year institutions	124,991
At public 2-year institutions	49,364
At private 4-year institutions	41,651
At private 2-year institutions	8,060
Undergraduate	189,718
First-time freshmen	45,922
Graduate	26,911
Professional	7,437
Total	224,066

Enrollment highlights:

Women	53.1%
Full-time	65.2%
Minority	20.5%
Foreign	2.7%
10-year change in total enrollment	Up 29.0%

Degrees awarded:

Associate	6,732
Bachelor's	19,103
Master's	5,652
Doctorate	654
Professional	1,990

Residence of new students: State residents make up 81% of all new college students enrolled in Georgia; 83% of all Georgia residents who attend college do so in their home state.

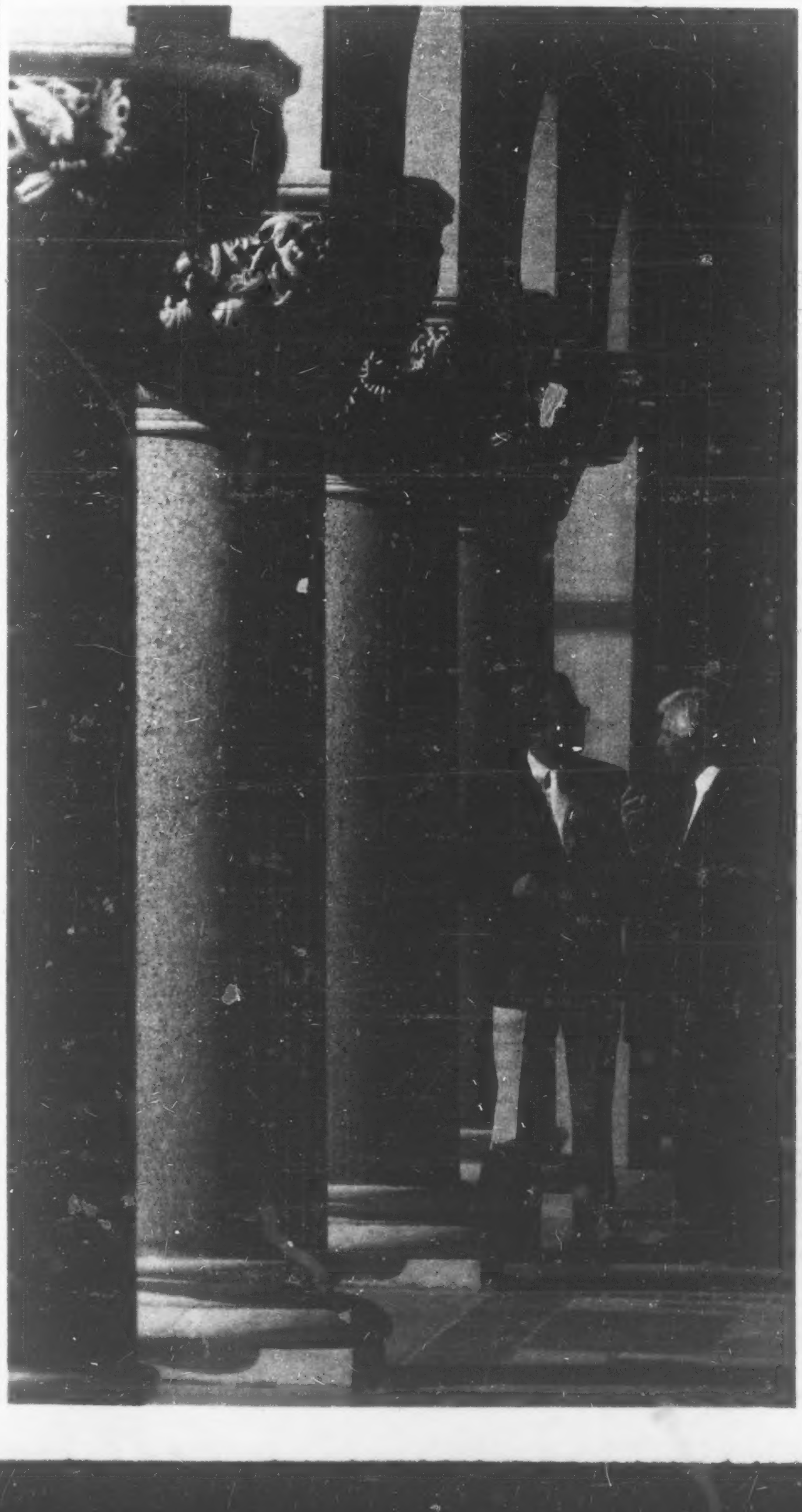
Proportion of all minority students who enroll at:

Public institutions	63.6%
Private institutions	36.4%
4-year institutions	78.4%
2-year institutions	21.6%

Proportion of students at largest public institutions who are minority-group members:

University of Georgia	6.6%
Georgia State University	19.3%

Continued on Page 41



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Georgia

CONTINUED

Proportion of students at largest private institutions who are minority-group members:

Emory University	9.9%
Mercer University main campus	16.2%

Test scores: Students averaged 848 on the S.A.T., which was taken by 62% of Georgia's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,369
At public 2-year institutions	$799
At private 4-year institutions	$5,688
At private 2-year institutions	$2,626

Most expensive public institution:
Georgia Institute of Technology, $1,971

Most expensive private institution:
Emory University, $12,410

Expenditures:

Public institutions	$1,255,964,000
Private institutions	$696,734,000

State funds for higher-education operating expenses: $812,299,000

Two-year change: Up 14%

State spending on student aid:
Need-based: $5,020,000; 14,141 awards
Non–need-based: $14,200,000; 15,510 awards
Other: $1,490,000

Salary of chief executive of largest public 4-year campus:
Charles B. Knapp, University of Georgia: $126,750 from state plus $16,000 from private donations (1989-90)

Total spending on research and development by doctorate-granting universities: $324,160,000

Sources:

Federal government	46.1%
State and local governments	12.2%
Industry	10.4%
The institution itself	28.4%
Other	2.9%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$27,834,000
GI Bill	$24,121,000
Pell Grants	$66,558,000

Total federal spending on college-and-university-based research and development: $144,144,000

Selected programs:

Department of Health and Human Services	$68,381,000
National Science Foundation	$11,917,000
Department of Defense	$35,954,000
Department of Agriculture	$7,562,000
Department of Energy	$11,192,000

Largest endowment:

Emory University	$772,655,000

Top fund raisers:

Georgia Institute of Technology	$62,961,000
Emory University	$48,121,000
University of Georgia	$21,713,000

MISCELLANY

★ Spelman College in 1988 received a $20-million gift from the comedian and television star Bill Cosby and his wife, Camille. The gift is believed to be the largest ever given to a predominantly black college and one of the largest gifts by any individual to a college.

★ The University of Georgia and the University of North Carolina each claims to be the oldest public university in the country.

★ The University of Georgia library holds nearly 60,000 pieces of material about the author of *Gone With the Wind*, Margaret Mitchell.

★ Apple Macintosh computers, printers, and software have been placed in the dormitory rooms of all Wesleyan College freshmen this year. By 1992, all full-time students will be supplied with computers.

★ The oldest institution of higher education in the state is the University of Georgia, founded in 1785.

Hawaii

Hawaii's unique geography and ethnic make-up have made higher education's task especially challenging here, as colleges and universities seek to make good use of their Pacific island locale.

In recent months, educators have debated the structure of public higher education. The Board of Regents of the University of Hawaii System serves as the coordinating and governing board for all public higher education in the state, including six community colleges. (Some had suggested that the community colleges become a separate system.)

But a study by the Carnegie Foundation for the Advancement of Teaching concluded that "the most urgent issues the University of Hawaii now confronts have more to do with substance than structure." The report suggested, for example, that the system develop a credit-transfer policy to make it easier for two-year-college students to complete their undergraduate studies at the four-year institutions.

The Governor of Hawaii, John Waihee, a Democrat, is a strong proponent of increasing higher-education financing. But he has told campus officials that they must constantly evaluate the need for and the value of existing programs, and use savings from cutbacks in their weaker academic areas to finance expansion in fields where they are most likely to excel.

The University of Hawaii, for instance, is known for its programs in marine biology and astronomy and is among the university systems most active in the growing "Pacific Rim" studies, which examine the culture, economies, and histories of the nations that border the Pacific Ocean.

DEMOGRAPHICS

Population: 1,121,000 (Rank: 39)

Age distribution:

Up to 17	26.1%
18 to 24	11.7%
25 to 34	17.9%
35 and older	44.4%

Racial and ethnic distribution:

American Indian	0.3%
Asian	61.2%
Black	1.8%
White	34.4%
Other and unknown	2.3%
Hispanic (may be any race)	7.4%

Educational attainment of adults:

At least 4 years of high school	73.8%
At least 1 to 3 years of college	38.8%
At least 4 years of college	20.3%

Per-capita personal income: $16,753

New high-school graduates in:

1989-90 (estimate)	12,264
1999-2000 (estimate)	12,792

High-school dropout rate: 29.2%

POLITICAL LEADERSHIP

Governor: John Waihee (D), term ends 1990

Governor's higher-education adviser: Richard Kosaki, State Capitol, Honolulu 96813; (808) 548-6390

U.S. Senators: Daniel K. Inouye (D), term ends 1993; Spark M. Matsunaga (D), term ends 1995

U.S. Representatives:
1 Democrat, 1 Republican
Daniel K. Akaka (D), Patricia F. Saiki (R)

Legislature: Senate, 22 Democrats, 3 Republicans; House, 45 Democrats, 6 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	3
Public 2-year institutions	6
Private 4-year institutions	5
Private 2-year institutions	0
Total	14

Vocational institutions: 40

Statewide coordinating board:
University of Hawaii Board of Regents
2444 Dole Street
Honolulu 96822
(808) 948-8207
Albert J. Simone, president

Private-college association:
None

Institutions censured by the AAUP:
None

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	1,641
At private institutions	126

Proportion with tenure:

At public institutions	67.3%
At private institutions	28.2%

Proportion who are women:

At public institutions	28.5%
At private institutions	34.1%

Average pay of full-time professors:

At public 4-year institutions	$38,449
At public 2-year institutions	$31,526
At private 4-year institutions	$22,900
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	22,404
At public 2-year institutions	20,342
At private 4-year institutions	9,545
At private 2-year institutions	0
Undergraduate	47,100
First-time freshmen	8,427
Graduate	4,716
Professional	475
Total	52,291

Enrollment highlights:

Women	52.7%
Full-time	56.5%
Minority	69.1%
Foreign	3.9%
10-year change in total enrollment	Up 11.2%

Degrees awarded:

Associate	2,350
Bachelor's	3,701
Master's	925
Doctorate	145
Professional	137

Residence of new students: State residents make up 87% of all new college students enrolled in Hawaii; 83% of all Hawaii residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	91.0%
Private institutions	9.0%
4-year institutions	56.7%
2-year institutions	43.3%

Proportion of students at largest public institutions who are minority-group members:

University of Hawaii at Manoa	73.7%
Leeward Community College	76.6%

Proportion of students at largest private institutions who are minority-group members:

Hawaii Pacific College	34.9%
Chaminade University of Honolulu	38.1%

Test scores: Students averaged 888 on the S.A.T., which was taken by 53% of Hawaii's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$972
At public 2-year institutions	$281
At private 4-year institutions	$3,020
At private 2-year institutions	n/a

Most expensive public institution:
University of Hawaii at Manoa, $1,327

Most expensive private institution:
Hawaii Loa College, $7,300

Expenditures:

Public institutions	$312,248,000
Private institutions	$20,964,000

State funds for higher-education operating expenses: $274,233,000

Two-year change: Up 24%

State spending on student aid:
Need-based: $598,000; 700 awards
Non–need-based: None
Other: None

Salary of chief executive of largest public 4-year campus:
Albert J. Simone, University of Hawaii at Manoa: $95,000 (1989-90)

Total spending on research and development by doctorate-granting universities: $57,345,000

Sources:

Federal government	60.1%
State and local governments	33.7%
Industry	0.5%
The institution itself	4.5%
Other	1.2%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$8,828,000
GI Bill	$5,644,000
Pell Grants	$6,071,000

Total federal spending on college-and-university-based research and development: $39,558,000

Selected programs:

Department of Health and Human Services	$6,543,000
National Science Foundation	$8,809,000
Department of Defense	$1,552,000
Department of Agriculture	$3,895,000
Department of Energy	$1,336,000

Largest endowment:

University of Hawaii	$42,514,000

Top fund raisers:

University of Hawaii	$8,755,000
Hawaii Pacific College	$846,000
Chaminade University of Honolulu	$530,000

MISCELLANY

★ The Polynesian Cultural Center in Oahu, a showcase for the traditional arts and crafts and songs and dances of the Pacific region, was started by the Church of Jesus Christ of Latter-day Saints to preserve the cultural heritage of Polynesia and to provide jobs for students on the Hawaii campus of Brigham Young University. Students employed at the tourist attraction work as guides, musicians, and gardeners, among other occupations.

★ The East-West Center, adjacent to the University of Hawaii's Manoa campus, was established by Congress in 1960 "to promote better relations and understanding between the United States and the nations of Asia and the Pacific through cooperative study, training, and research."

★ The summit of Mauna Kea, the biggest mountain on the largest island of the Hawaiian chain, is considered by many astronomers to be

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Hawaii
CONTINUED

the best site in the world for ground-based telescopes. The University of Hawaii manages the site's scientific facilities, which are used by astronomers from Britain, Canada, France, Japan, the Netherlands, and the United States, among other countries.

★ The oldest institution of higher education in Hawaii is the University of Hawaii at Manoa, founded in 1907.

Idaho

IDAHO had a university before it became a state, and Gov. Cecil D. Andrus says that "should tell us a great deal about the importance Idahoans always have attached to education."

In recent years, however, residents have been struggling to balance the financial demands of the flagship campus, the University of Idaho in Moscow, and the needs of other public institutions, particularly Boise State University in the capital.

The debate has taken on new urgency because of serious weaknesses in the three mainstays of Idaho's economy—mining, timber, and agriculture. The colleges are trying to maintain quality programs under uncertain financial conditions that have led to concern that some institutions would lose their accreditation.

Higher education's share of the state budget has dropped to 14.9 per cent for the fiscal year 1990, from 18 per cent in 1978.

Both the Governor and key legislators have been pushing for more funds for Idaho colleges. Higher-education officials have welcomed the attention, but they have sometimes been caught in the middle of debates between Governor Andrus, a Democrat, and the Republican-controlled Legislature about which branch of government was doing more for education.

Idaho has one board for coordinating and governing all levels of education. It is called the State Board of Education when it is dealing with elementary and secondary schools and the Board of Regents when dealing with colleges and universities.

State lawmakers recently expanded the authority of the board's executive director to include a role in the evaluation, hiring, and firing of university presidents.

DEMOGRAPHICS

Population: 1,013,000 (Rank: 42)

Age distribution:

Up to 17	30.3%
18 to 24	10.4%
25 to 34	16.8%
35 and older	42.4%

Racial and ethnic distribution:

American Indian	1.1%
Asian	0.7%
Black	0.3%
White	95.8%
Other and unknown	2.1%
Hispanic (may be any race)	3.9%

Educational attainment of adults:

At least 4 years of high school	73.7%
At least 1 to 3 years of college	37.2%
At least 4 years of college	15.8%

Per-capita personal income: $12,665

New high-school graduates in:

1989-90 (estimate)	12,030
1999-2000 (estimate)	11,554

High-school dropout rate: 21.2%

POLITICAL LEADERSHIP

Governor: Cecil D. Andrus (D), term ends 1991

Governor's higher-education adviser: Alice Koskela, State House, Boise 83720; (208) 334-2100

U.S. Senators: James A. McClure (R), term ends 1991; Steve Symms (R), term ends 1993

U.S. Representatives:
1 Democrat, 1 Republican
Larry E. Craig (R), Richard H. Stallings (D)

Legislature: Senate, 19 Democrats, 23 Republicans; House, 20 Democrats, 64 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	4
Public 2-year institutions	2
Private 4-year institutions	3
Private 2-year institutions	2
Total	11

Vocational institutions: 42

Statewide coordinating board:
Board of Regents
Len B. Jordan Building, Room 307
650 West State Street
Boise 83720
(208) 334-2270
Rayburn Barton, executive director for higher education

Private-college association:
None

Institutions censured by the AAUP:
None

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	1,235
At private institutions	65

Proportion with tenure:

At public institutions	66.8%
At private institutions	3.2%

Proportion who are women:

At public institutions	22.3%
At private institutions	15.4%

Average pay of full-time professors:

At public 4-year institutions	$31,846
At public 2-year institutions	$27,348
At private 4-year institutions	$25,966
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	29,781
At public 2-year institutions	5,010
At private 4-year institutions	2,397
At private 2-year institutions	8,379
Undergraduate	39,906
First-time freshmen	9,863
Graduate	5,365
Professional	296
Total	45,567

Enrollment highlights:

Women	52.8%
Full-time	67.5%
Minority	4.3%
Foreign	1.8%
10-year change in total enrollment	Up 13.4%

Degrees awarded:

Associate	2,297
Bachelor's	3,035
Master's	722
Doctorate	47
Professional	68

Residence of new students: State residents make up 65% of all new college students enrolled in Idaho; 73% of all Idaho residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	87.0%
Private institutions	13.0%
4-year institutions	75.9%
2-year institutions	24.1%

Proportion of students at largest public institutions who are minority-group members:

Boise State University	4.5%
University of Idaho	3.5%

Proportion of students at largest private institutions who are minority-group members:

Ricks College	2.4%
College of Idaho	2.8%

Test scores: Students averaged 19.3 on the A.C.T., which was taken by 57% of Idaho's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,036
At public 2-year institutions	$690
At private 4-year institutions	$5,774
At private 2-year institutions	$582

Most expensive public institution: Boise State University, $1,224

Most expensive private institution: College of Idaho, $8,200

Expenditures:

Public institutions	$238,438,000
Private institutions	$49,768,000

State funds for higher-education operating expenses: $144,987,000
Two-year change: Up 15%

State spending on student aid:
Need-based: $494,000; 902 awards
Non-need-based: $114,000; 76 awards
Other: $16,000

Salary of chief executive of largest public 4-year campus:
John H. Keiser, Boise State University: $84,905 (1989-90)

Total spending on research and development by doctorate-granting universities: $24,779,000

Sources:	
Federal government	36.3%
State and local governments	33.6%
Industry	11.7%
The institution itself	17.9%
Other	0.6%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$8,613,000
GI Bill	$4,532,000
Pell Grants	$19,375,000

Total federal spending on college-and-university-based research and development: $7,153,000

Selected programs:	
Department of Health and Human Services	$519,000
National Science Foundation	$719,000
Department of Defense	$90,000
Department of Agriculture	$3,700,000
Department of Energy	$117,000

Largest endowment:

University of Idaho	$26,310,000

Top fund raisers:

College of Idaho	$6,880,000
Boise State University	$3,299,000
Northwest Nazarene College	$2,007,000

MISCELLANY

★ The new president of the University of Idaho is Elisabeth Ann Zinser, who served 36 tumultuous hours as president of Gallaudet University in March 1988 before stepping aside for the university's first deaf president.

★ Student-body presidents from Idaho's public institutions last year made a television commercial urging high-school students to go to college in the state. The 30-second advertisement, aimed at reducing the "brain drain" of talented seniors, was aired during the college basketball season.

★ Boise State University, located near the canyon that is home to the nation's largest population of birds of prey, offers a highly specialized master's-degree program in raptor biology.

★ The oldest institution of higher education in Idaho is Ricks College, a Mormon institution founded in 1888.

Illinois

HIGHER-EDUCATION officials in Illinois were jubilant after a change of heart by the legislator who for two years had blocked their efforts to get taxes raised to augment their budgets.

The legislator, Speaker of the House Michael J. Madigan, a Democrat, sponsored a bill to institute a temporary increase in the state income-tax rate that would give higher education 17 per cent more money this year than it received in fiscal 1989.

Mr. Madigan had repeatedly blocked efforts by Gov. James R. Thompson, a Republican, to raise taxes and designate a large share of the new revenue for education. Many political observers said a key factor in the Speaker's switch was the election of Richard M. Daley as Mayor of Chicago.

Mr. Daley has emerged as an extremely powerful politician whose city and its public schools desperately need more financial assistance from the state. The new push to help Chicago reportedly increased the pressure on Mr. Madigan to support the tax increase.

Despite the generally frugal years preceding the tax increase, Illinois has a history of strong support for higher education. The flagship campus, the University of Illinois at Urbana-Champaign, is considered to be among the top public universities in the nation. It regularly wins major federal research projects and is the home of the National Center for Supercomputer Applications.

The strength of the university, along with the fame of private institutions, like Northwestern University and the University of Chicago, made the state a leading, but unsuccessful, candidate to become the site of the Superconducting Supercollider.

The higher-education systems in Illinois are governed in a highly decentralized manner, with a coordinating board supervising five governing boards. Public universities are spread throughout the state, and citizens are tough advocates for their local institutions.

In recent years, Illinois colleges and universities have been paying more attention to attracting minority students to their campuses and to working with the public schools.

DEMOGRAPHICS

Population: 11,599,000 (Rank: 6)

Age distribution:

Up to 17	25.9%
18 to 24	10.8%
25 to 34	17.9%
35 and older	45.4%

Racial and ethnic distribution:

American Indian	0.2%
Asian	1.5%
Black	14.7%
White	81.1%
Other and unknown	2.6%
Hispanic (may be any race)	5.6%

Educational attainment of adults:

At least 4 years of high school	66.5%
At least 1 to 3 years of college	31.4%
At least 4 years of college	16.2%

Per-capita personal income: $17,575

New high-school graduates in:

1989-90 (estimate)	124,290
1999-2000 (estimate)	116,680

High-school dropout rate: 24.3%

POLITICAL LEADERSHIP

Governor: James R. Thompson (R), term ends 1991

Governor's higher-education adviser: Gail Lieberman, 2½ State House, Springfield 62706; (217) 782-4921

U.S. Senators: Alan J. Dixon (D), term ends 1993; Paul Simon (D), term ends 1991

U.S. Representatives:
14 Democrats, 8 Republicans
Frank Annunzio (D), Terry L. Bruce (D), Cardiss Collins (D), Jerry F. Costello (D), Philip M. Crane (R), Richard J. Durbin (D), Lane Evans (D), Harris W. Fawell (R), J. Dennis Hastert (R), Charles A. Hayes (D), Henry J. Hyde (R), William O. Lipinski (D), Edward R. Madigan (R), Lynn Martin (R), Robert H. Michel (R), John Edward Porter (R), Glenn Poshard (D), Dan Rostenkowski (D), Marty Russo (D), George E. Sangmeister (D), Gus Savage (D), Sidney R. Yates (D)

General Assembly: Senate, 31 Democrats, 28 Republicans; House, 67 Democrats, 51 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	12
Public 2-year institutions	47

Private 4-year institutions	91
Private 2-year institutions	16
Total	166

Vocational institutions: 443

Statewide coordinating board:
Board of Higher Education
500 Reisch Building
4 West Old Capitol Square
Springfield 62701
(217) 782-2551
Richard D. Wagner, executive director

Private-college association:
Federation of Independent Illinois Colleges and Universities
Myers Building, Suite 506
One West Old Capitol Plaza
Springfield 62701
(217) 789-1400
Donald E. Fouts, president

Institution censured by the AAUP:
Illinois College of Optometry

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	13,074
At private institutions	6,197

Proportion with tenure:

At public institutions	76.2%
At private institutions	63.1%

Proportion who are women:

At public institutions	28.1%
At private institutions	25.5%

Average pay of full-time professors:

At public 4-year institutions	$35,258
At public 2-year institutions	$34,067
At private 4-year institutions	$37,538
At private 2-year institutions	$21,983

STUDENTS

Enrollment:

At public 4-year institutions	197,057
At public 2-year institutions	324,060
At private 4-year institutions	156,401
At private 2-year institutions	9,436
Undergraduate	587,099
First-time freshmen	109,599
Graduate	82,833
Professional	17,022
Total	686,954

Enrollment highlights:

Women	54.4%
Full-time	50.4%
Minority	22.8%
Foreign	1.9%
10-year change in total enrollment	Up 11.5%

Degrees awarded:

Associate	23,913
Bachelor's	47,387
Master's	17,075
Doctorate	2,062
Professional	4,429

Residence of new students: State residents make up 88% of all new college students enrolled in Illinois; 85% of all Illinois residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	81.6%
Private institutions	18.4%
4-year institutions	37.3%
2-year institutions	62.7%

Proportion of students at largest public institutions who are minority-group members:

University of Illinois at Urbana–Champaign	11.4%
University of Illinois at Chicago	28.0%

Proportion of students at largest private institutions who are minority-group members:

Northwestern University	14.2%
Loyola University of Chicago	20.2%

Test scores: Students averaged 18.9 on the A.C.T., which was taken by 65% of Illinois's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,708
At public 2-year institutions	$866
At private 4-year institutions	$6,560
At private 2-year institutions	$3,614

Most expensive public institution:
University of Illinois at Urbana–Champaign, $2,788

Most expensive private institution:
University of Chicago, $14,025

Expenditures:

Public institutions	$2,571,409,000
Private institutions	$2,722,294,000

State funds for higher-education operating expenses: $1,399,444,000

Two-year change: Up 1%

State spending on student aid:
Need-based: $147,303,000; 102,020 awards
Non–need-based: $8,475,000; 14,248 awards
Other: $3,658,000

Salary of chief executive of largest public 4-year campus:
Morton W. Weir, University of Illinois at Urbana–Champaign: $130,000 (1989-90)

Total spending on research and development by doctorate-granting universities: $498,221,000

Sources:

Federal government	59.0%
State and local governments	6.1%
Industry	4.8%
The institution itself	23.6%
Other	6.4%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$60,485,000
GI Bill	$22,512,000
Pell Grants	$173,249,000

Total federal spending on college-and-university-based research and development: $297,368,000

Selected programs:

Department of Health and Human Services	$147,632,000
National Science Foundation	$69,580,000
Department of Defense	$28,686,000
Department of Agriculture	$7,997,000
Department of Energy	$20,570,000

Largest endowment:

University of Chicago	$897,826,000

Top fund raisers:

Northwestern University	$65,955,000
University of Chicago	$63,714,000
University of Illinois	$59,053,000

MISCELLANY

★ Graduating seniors at Northwestern University hold "Bullet Nights" at local bars each spring, with each "bullet"—the term students use to describe a rejection letter from an employer—being worth a free glass of beer.

★ Business students at the University of Chicago have developed a course that uses improvisational theater to help them enhance their leadership and interpersonal skills.

★ Roosevelt University received a $2.75-million bequest from an

Continued on Following Page

Why join a
Fraternity
that won't
let you
threaten or
torture your
brothers?

Illinois
CONTINUED

alumnus who stipulated that the money be spent only on social and recreational amenities for students. Officials plan to use the gift to build a new gym, renovate student lounges, and create a fund for student activities.

★ The University of Chicago's Committee on Social Thought is an interdisciplinary humanities department that is home to the novelist Saul Bellow and Allan Bloom, the higher-education critic and classics scholar. The "Chicago school" of economics has spread the ideas of the free-market theorist Milton Friedman.

★ The oldest higher-education institution in Illinois is McKendree College, which was founded in 1828 and is affiliated with the United Methodist Church.

Indiana

INCREASING the low college-going rates that are commonly found in rust-belt states is a top priority for Indiana's new Governor, Evan Bayh.

Governor Bayh, born in 1955, is one of the nation's youngest state executives, and when he took office in January 1989 he became the first Democrat to be Governor in the Hoosier State in 24 years.

Like the governors of other rust-belt states, he says the state's economic health is linked to higher education and has called for increased financing for the state's colleges and universities and greater attempts to attract minority and non-traditional students.

Although Indiana has many respected public universities, college-attendance rates historically have lagged behind those of other states. In northern Indiana, in particular, the economy has been dominated by automobile-related industries, and residents did not need a college degree to find well-paying jobs.

But declines in the auto industry have changed that picture in recent years, and state officials have been trying to encourage more people to attend college. Institutions are designing recruitment programs for ninth-graders and working with secondary-school systems to help students get any remedial help they may need.

The Commission for Higher Education, the statewide coordinating board, is responsible for planning and reviewing budgets and academic programs. The seven public systems are governed by individual boards.

The University of Notre Dame, one of the nation's premier Roman Catholic institutions, is influential in the state and in the country.

The "Win One for the Gipper" legend in college athletics was born in Indiana under the great Notre Dame football coach, Knute Rockne. The state's enthusiasm for sports endures today, centering on the Indiana University basketball teams coached by Bobby Knight. While Mr. Knight is extremely popular in Indiana, some higher-education officials worry that his tremendous influence in the state distorts the university's academic priorities.

Sources and notes appear on Page 96

DEMOGRAPHICS

Population: 5,542,000 (Rank: 14)

Age distribution:

Up to 17	26.3%
18 to 24	11.1%
25 to 34	17.6%
35 and older	44.9%

Racial and ethnic distribution:

American Indian	0.2%
Asian	0.4%
Black	7.6%
White	91.2%
Other and unknown	0.6%
Hispanic (may be any race)	1.6%

Educational attainment of adults:

At least 4 years of high school	66.4%
At least 1 to 3 years of college	24.6%
At least 4 years of college	12.5%

Per-capita personal income: $14,924

New high-school graduates in:

1989-90 (estimate)	67,281
1999-2000 (estimate)	61,124

High-school dropout rate: 26.3%

POLITICAL LEADERSHIP

Governor: Evan Bayh (D), term ends 1993

Governor's higher-education adviser: Marci Reddick, State House, Room 206, Indianapolis 46204; (317) 232-6109

U.S. Senators: Dan Coats (R), term ends 1990; Richard G. Lugar (R), term ends 1995

U.S. Representatives:
7 Democrats, 3 Republicans
Dan Burton (R), Lee H. Hamilton (D), John Hiler (R), Andrew Jacobs, Jr. (D), Jim Jontz (D), Jill L. Long (D), Frank McCloskey (D), John T. Myers (R), Philip R. Sharp (D), Peter J. Visclosky (D)

General Assembly: Senate, 24 Democrats, 26 Republicans; House, 50 Democrats, 50 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	14
Public 2-year institutions	15
Private 4-year institutions	38
Private 2-year institutions	11
Total	78

Vocational institutions: 168

Statewide coordinating board:
Commission for Higher Education
101 West Ohio Street, Suite 550
Indianapolis 46204
(317) 232-1900
Clyde R. Ingle, commissioner for higher education

Private-college association:
Independent Colleges and Universities of Indiana
200 South Meridian Street, Suite 220
Indianapolis 46225
(317) 635-2655
William Du Bois, Jr., president

Institution censured by the AAUP:
Concordia Theological Seminary

because ALL oppose

Hazing has no place in the fraternity experience.

It is a dangerous form of intimidation that makes a mockery of the whole concept of fraternal love. It does not strengthen bonds of friendship. It does not demonstrate leadership. It does not prove an individual's superior qualifications in any way.

We, the men's general fraternities united in the National Interfraternity Conference, are dedicated and determined to deal with hazing.

We stand united in our affirmation of basic standards of human behavior.

We instill the principles of diligence, honor, integrity, virtue, duty and respect for human dignity.

Consider these facts:

- *Hazing is a criminal act in more than 30 states yet during the past decade more than 40 students have died in hazing-related tragedies.*
- *College students continue to be crippled and injured every year by ill-conceived and illegal hazing in a variety of student organizations.*
- *Although hazing has been actively discouraged by national fraternities for decades, highly-publicized, isolated incidents consistently diminish or destroy the value of worthwhile, positive and beneficial fraternity activities across the nation.*

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	6,765
At private institutions	2,522

Proportion with tenure:

At public institutions	65.7%
At private institutions	62.2%

Proportion who are women:

At public institutions	[illegible]7.1%
At private institutions	[illegible]

Average pay of full-time profess[illegible]

At public 4-year institutions	$[illegible],748
At public 2-year institutions	$[illegible]2,753
At private 4-year institutions	$34,277
At private 2-year institutions	$23,628

STUDENTS

Enrollment:

At public 4-year institutions	166,736
At public 2-year institutions	34,721
At private 4-year institutions	51,397
At private 2-year institutions	3,410
Undergraduate	221,107
First-time freshmen	50,420
Graduate	29,845
Professional	5,312
Total	256,264

Enrollment highlights:

Women	51.6%
Full-time	64.0%
Minority	8.3%
Foreign	2.5%
10-year change in total enrollment	Up 13.9%

Degrees awarded:

Associate	8,681
Bachelor's	26,623
Master's	6,943
Doctorate	967
Professional	1,518

Residence of new students: State residents make up 77% of all new college students enrolled in Indiana; 85% of all Indiana residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	80.9%
Private institutions	19.1%
4-year institutions	78.1%
2-year institutions	21.9%

Proportion of students at largest public institutions who are minority-group members:

Purdue University main campus	6.6%
Indiana University at Bloomington	6.8%

Proportion of students at largest private institutions who are minority-group members:

University of Notre Dame	8.0%
Valparaiso University	3.1%

Test scores: Students averaged 870 on the S.A.T., which was taken by 59% of Indiana's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,627
At public 2-year institutions	$1,211
At private 4-year institutions	$6,762
At private 2-year institutions	$3,800

Most expensive public institution:
Indiana University at Bloomington, $2,183

Most expensive private institution:
Earlham College, $11,610

Expenditures:

Public institutions	$1,602,203,000
Private institutions	$530,163,000

State funds for higher-education operating expenses: $755,614,000

Two-year change: Up 14%

State spending on student aid:
Need-based: $51,654,000; 35,984 awards
Non-need-based: $408,000; 815 awards
Other: None

Salary of chief executive of largest public 4-year campus:
Steven C. Beering, Purdue University main campus: $150,000 (1989-90)

Total spending on research and development by doctorate-granting universities: $188,085,000

Sources:

Federal government	59.2%
State and local governments	8.4%
Industry	9.1%
The institution itself	20.0%
Other	3.2%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$21,676,000
GI Bill	$13,341,000
Pell Grants	$86,243,000

Total federal spending on college-and-university-based research and development: $111,289,000

Selected programs:

Department of Health and Human Services	$47,169,000
National Science Foundation	$24,816,000
Department of Defense	$12,681,000
Department of Agriculture	$5,928,000
Department of Energy	$13,816,000

Largest endowment:

University of Notre Dame	$463,502,000

Top fund raisers:

University of Notre Dame	$44,738,000
Indiana University	$37,018,000
Purdue University	$22,082,000

MISCELLANY

★ De Pauw University, Vice-President Quayle's alma mater, was swamped with requests for information about his academic performance when the Republicans nominated then-Senator Quayle to run for Vice-President. The university did not release the information, although several professors said they did not remember Mr. Quayle as having been an outstanding student.

★ On the day Dan Quayle was officially elected Vice-President by the Electoral College, he was reelected to the Board of Trustees of Franklin College of Indiana. A college official said Mr. Quayle "understood the importance of the private sector in higher education."

★ Muncie, known as "Middletown" to scholars seeking truths about Middle America, may be the most famous sociological laboratory in the country. It was studied in great depth by Robert and Helen Lynd in the 1920's and 30's and again by a team of scholars in the 1980's. Ball State University figured prominently in those studies.

★ The oldest institution of higher education in Indiana is Vincennes University, a two-year college founded in 1801 as the Jefferson Academy and renamed in 1806.

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- *Hazing — which fraternities define as any action or situation intended to produce mental or physical harassment, embarrassment or ridicule — is ABSOLUTELY FORBIDDEN.*
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Iowa

HIGHER EDUCATION in Iowa belies many of the stereotypes of farm states.

The Iowa Writer's Workshop, for example, is a nationally known program at the University of Iowa that competes with New York City as a mecca for aspiring authors. High-technology research programs are also prominent at the university and at Iowa State University. And the public schools in the state rank high in the quality of graduates they produce.

At the same time, however, Iowa college officials would have a hard time forgetting that agriculture is the state's dominant industry. Research on agriculture is well financed and closely watched by state officials and farm-lobby organizations. And Iowa's overall prosperity, which largely determines higher-education budgets, is based on the farm economy.

After a major slump in that economy during the mid-1980's, Iowa is now on the rebound, and financial support for higher education is on the rise.

Public higher education in Iowa operates on two levels. The Board of Regents runs the three public universities, and the State Board of Education governs community colleges, which in Iowa are called "area colleges."

In the past year, public higher education has been the subject of a major political debate in Iowa. The most bitterly debated questions involve how the state can eliminate academic programs that may no longer be needed. Although all sides agree some programs should be cut, no campus or department is volunteering to be the first to go.

Gov. Terry E. Branstad, a Republican, and the Democratic-controlled General Assembly are at odds on the issue, and both have commissioned studies and reports to back up their views.

Private higher education is highly important in Iowa. The state does not have public four-year liberal-arts colleges, so that type of education is available only from private institutions. Coe, Cornell, and Grinnell Colleges are typical of the relatively small private colleges that are located throughout the state. Because of the role of such colleges, their students are eligible for student-aid grants from the state that are unusually high for the Midwestern region.

DEMOGRAPHICS

Population: 2,780,000 (Rank: 29)

Age distribution:

Up to 17	25.2%
18 to 24	10.6%
25 to 34	17.5%
35 and older	46.7%

Racial and ethnic distribution:

American Indian	0.2%
Asian	0.5%
Black	1.4%
White	97.5%
Other and unknown	0.4%
Hispanic (may be any race)	0.9%

Educational attainment of adults:

At least 4 years of high school	71.5%
At least 1 to 3 years of college	28.6%
At least 4 years of college	13.9%

Per-capita personal income: $14,662

New high-school graduates in:

1989-90 (estimate)	34,185
1999-2000 (estimate)	32,514

High-school dropout rate: 13.6%

POLITICAL LEADERSHIP

Governor: Terry E. Branstad (R), term ends 1991

Governor's higher-education adviser: Phillip Dunshee, State House, Des Moines 50319; (515) 281-5211

U.S. Senators: Charles E. Grassley (R), term ends 1993; Tom Harkin (D), term ends 1991

U.S. Representatives:
2 Democrats, 4 Republicans
Fred Grandy (R), Jim Leach (R), Jim Lightfoot (R), David R. Nagle (D), Neal Smith (D), Thomas J. Tauke (R)

General Assembly: Senate, 30 Democrats, 20 Republicans; House, 61 Democrats, 39 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	3
Public 2-year institutions	20
Private 4-year institutions	36
Private 2-year institutions	6
Total	65

Vocational institutions: 96

Statewide coordinating boards:

State Board of Regents
East 12th and Grand
Old Historical Building
Des Moines 50319
(515) 281-3934
R. Wayne Richey, executive director

Department of Education
Bureau of Area Colleges
Grimes State Office Building
Des Moines 50319
(515) 281-8260
Robert B. Yeager, chief

Private-college association:
Iowa Association of Independent Colleges and Universities
Equitable Building, Suite 307
604 Locust Street
Des Moines 50309
(515) 282-3175
John V. Hartung, president

Institution censured by the AAUP:
University of Osteopathic Medicine and Health Sciences

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	4,128
At private institutions	2,033

Proportion with tenure:

At public institutions	71.4%
At private institutions	59.1%

Proportion who are women:

At public institutions	25.4%
At private institutions	26.3%

Average pay of full-time professors:

At public 4-year institutions	$37,162
At public 2-year institutions	$25,720
At private 4-year institutions	$28,451
At private 2-year institutions	$22,632

STUDENTS

Enrollment:

At public 4-year institutions	69,335
At public 2-year institutions	42,672
At private 4-year institutions	42,898
At private 2-year institutions	3,325

Undergraduate	135,016
First-time freshmen	35,439
Graduate	17,120
Professional	6,094
Total	158,230

Enrollment highlights:

Women	50.8%
Full-time	72.7%
Minority	4.4%
Foreign	4.0%
10-year change in total enrollment	Up 25.8%

Degrees awarded:

Associate	7,236
Bachelor's	16,450
Master's	2,775
Doctorate	608
Professional	1,315

Residence of new students: State residents make up 82% of all new college students enrolled in Iowa; 84% of all Iowa residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	71.4%
Private institutions	28.6%
4-year institutions	71.5%
2-year institutions	28.5%

Proportion of students at largest public institutions who are minority-group members:

University of Iowa	5.1%
Iowa State University	4.3%

Proportion of students at largest private institutions who are minority-group members:

Drake University	4.2%
Buena Vista College	1.5%

Test scores: Students averaged 20.3 on the A.C.T., which was taken by 63% of Iowa's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,385
At public 2-year institutions	$1,057
At private 4-year institutions	$5,847
At private 2-year institutions	$3,180

Most expensive public institutions:
Iowa State University and University of Iowa, $1,826

Most expensive private institution:
Grinnell College, $11,708

Expenditures:

Public institutions	$1,092,542,000
Private institutions	$353,753,000

State funds for higher-education operating expenses: $478,991,000

Two-year change: Up 18%

State spending on student aid:
Need-based: $30,915,000; 20,291 awards
Non–need-based: $450,000; 3,750 awards
Other: $21,551,000

Salary of chief executive of largest public 4-year campus:
Hunter R. Rawlings, III, University of Iowa: $154,440 (1989-90)

Total spending on research and development by doctorate-granting universities: $157,482,000

Sources:

Federal government	48.8%
State and local governments	10.6%
Industry	3.9%
The institution itself	31.5%
Other	5.1%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$18,684,000
GI Bill	$7,790,000
Pell Grants	$64,501,000

Total federal spending on college-and-university-based research and development: $81,802,000

Selected programs:

Department of Health and Human Services	$52,299,000
National Science Foundation	$5,863,000
Department of Defense	$3,926,000
Department of Agriculture	$8,770,000
Department of Energy	$999,000

Largest endowment:

Grinnell College	$270,658,000

Top fund raisers:

University of Iowa	$30,885,000
Iowa State University	$16,081,000
Drake University	$7,503,000

MISCELLANY

★ Cornell College requires all faculty members to be versed in at least the outlines of feminist scholarship in their discipline.

★ Student leaders at Dordt College, hoping to show their peers that they can socialize without drinking alcohol, hold events where guests are offered a menu of mixed drinks—made of ice cream and soft drinks—with such names as Tarzan's Revenge and Choco-Mint Twist.

★ Theodore W. Schultz resigned from the faculty of Iowa State University in 1943 after being pressured by political leaders to alter his views on margarine. Mr. Schultz had offended the powerful dairy lobby by suggesting that the federal government could save money by using margarine instead of butter. He went on to teach economics at the University of Chicago, where, in 1979, he won the Nobel Prize in economics.

★ All undergraduates at Buena Vista College must attend at least 20 cultural events and lectures each year. Among the offerings: the Vienna Boys' Choir, New Orleans jazz, and flamenco guitar.

★ The University of Northern Iowa has created a Center for Minorities in Education in an effort to attract more minority students to its teacher-education program.

★ The Herbert Hoover Library, which contains most of the late President's papers, is located in West Branch.

★ The oldest higher-education institution in Iowa is Loras College, a Roman Catholic institution founded in 1839.

Kansas

LIKE that of other farm states, the economy of Kansas has been hard hit in recent years, leading to many budget cuts for higher education. Education, however, is usually a major issue in this populist state, and Gov. Mike Hayden, a Republican, is trying to restore those cuts through his Margin of Excellence Partnership. Kansas embarked on the three-year partnership to increase the salaries of faculty members at the state's universities and to improve research and library facilities.

The Kansas Board of Regents received full financing for the first and second years of the program, but some people fear that a weakened farm economy and budgetary constraints could make full financing difficult in 1990.

Lawmakers rejected an attempt to bring Washburn University, which is financed by the City of Topeka and governed by a locally elected board, into the state regents' system because the Legislature did not want to increase substantially its financial commitment to the institution. The Legislature compromised by increasing the state's contribution to the university by $1.2-million.

The Board of Regents serves as the coordinating board for all of higher education in the state and as the governing board for the six state universities and the two-year technical institute.

Community colleges are governed by local boards, under the supervision of the State Department of Education.

DEMOGRAPHICS

Population: 2,485,000 (Rank: 32)

Age distribution:

Up to 17	26.2%
18 to 24	10.5%
25 to 34	17.9%
35 and older	45.5%

Continued on Page 51

Sources and notes appear on Page 96

Kansas
CONTINUED

Racial and ethnic distribution:

American Indian	0.8%
Asian	0.7%
Black	5.3%
White	91.8%
Other and unknown	1.4%
Hispanic (may be any race)	2.7%

Educational attainment of adults:

At least 4 years of high school	73.3%
At least 1 to 3 years of college	34.2%
At least 4 years of college	17.0%

Per-capita personal income: $15,759

New high-school graduates in:

1989-90 (estimate)	26,987
1999-2000 (estimate)	31,044

High-school dropout rate: 17.9%

POLITICAL LEADERSHIP

Governor: Mike Hayden (R), term ends 1991

Governor's higher-education adviser: Denise C. Apt, State Capitol, Topeka 66612; (913) 296-7108

U.S. Senators: Bob Dole (R), term ends 1993; Nancy Landon Kassebaum (R), term ends 1991

U.S. Representatives:
2 Democrats, 3 Republicans
Dan Glickman (D), Jan Meyers (R), Pat Roberts (R), Jim Slattery (D), Bob Whittaker (R)

Legislature: Senate, 18 Democrats, 22 Republicans; House, 58 Democrats, 67 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	8
Public 2-year institutions	21
Private 4-year institutions	21
Private 2-year institutions	4
Total	54

Vocational institutions: 91

Statewide coordinating board:
Kansas Board of Regents
400 S.W. 8th Street, Suite 609
Capitol Tower
Topeka 66603
(913) 296-3421
Stanley Z. Koplik, executive director

Private-college association:
Kansas Independent
College Association
Capitol Federal Building, Room 515
700 Kansas Avenue
Topeka 66603
(913) 235-9877
Robert N. Kelly, executive director

Institutions censured by the AAUP:
None

Institution under NCAA sanctions:
University of Kansas

FACULTY MEMBERS

Full-time faculty members:

At public institutions	4,448
At private institutions	738

Proportion with tenure:

At public institutions	71.6%
At private institutions	38.4%

Proportion who are women:

At public institutions	27.3%
At private institutions	30.8%

Average pay of full-time professors:

At public 4-year institutions	$32,885
At public 2-year institutions	$27,594
At private 4-year institutions	$22,135
At private 2-year institutions	$17,151

STUDENTS

Enrollment:

At public 4-year institutions	85,846
At public 2-year institutions	47,537
At private 4-year institutions	11,809
At private 2-year institutions	1,247
Undergraduate	125,625
First-time freshmen	26,506
Graduate	18,595
Professional	2,219
Total	146,439

Enrollment highlights:

Women	53.5%
Full-time	57.6%
Minority	8.9%
Foreign	3.0%
10-year change in total enrollment	Up 14.9%

Degrees awarded:

Associate	5,374
Bachelor's	11,714
Master's	2,986
Doctorate	389
Professional	655

Residence of new students: State residents make up 81% of all new college students enrolled in Kansas; 87% of all Kansas residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	86.8%
Private institutions	13.2%
4-year institutions	58.1%
2-year institutions	41.9%

Proportion of students at largest public institutions who are minority-group members:

University of Kansas	6.3%
Kansas State University	6.6%

Proportion of students at largest private institutions who are minority-group members:

Mid-America Nazarene College	2.3%
Friends University	5.9%

Test scores: Students averaged 19.1 on the A.C.T., which was taken by 66% of Kansas's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,271
At public 2-year institutions	$537
At private 4-year institutions	$4,121
At private 2-year institutions	$3,461

Most expensive public institution: Washburn University of Topeka, $2,278

Most expensive private institution: Friends University, $6,432

Expenditures:

Public institutions	$848,602,000
Private institutions	$105,193,000

State funds for higher-education operating expenses: $382,326,000

Two-year change: Up 17%

State spending on student aid:
Need-based: $5,680,000; 4,850 awards
Non-need based: $25,000; 100 awards
Other: $326,000

Salary of chief executive of largest public 4-year campus: Gene A. Budig, University of Kansas: $124,500 (1989-90)

Total spending on research and development by doctorate-granting universities: $93,931,000

Sources:

Federal government	39.8%
State and local governments	21.3%
Industry	5.8%
The institution itself	29.4%
Other	3.7%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$14,386,000
GI Bill	$9,833,000
Pell Grants	$50,266,000

Total federal spending on college-and-university-based research and development: $35,863,000

Selected programs:

Department of Health and Human Services	$16,808,000
National Science Foundation	$4,406,000
Department of Defense	$2,117,000
Department of Agriculture	$4,717,000
Department of Energy	$1,661,000

Largest endowment:

Kansas University Endowment Association	$172,342,000

Top fund raisers:

University of Kansas	$17,467,000
Kansas State University	$12,849,000
Washburn University of Topeka	$4,118,000

MISCELLANY

★ Emporia State University and the town of Emporia are raising money to create a National Teachers Hall of Fame. The facility, which would be adjacent to a one-room rural schoolhouse on the university campus, would include a museum of American education and a conference and study center.

★ Bethel College operates a mail-order business that sells about 10,000 8-ounce bags of wheat stems each year to people who weave the material into wreaths and other decorative items.

★ The Dwight D. Eisenhower Library is located in Abilene.

★ The oldest higher-education institution in Kansas is Highland Community College, which was chartered in 1857. The oldest four-year university in the state is Baker University, a United Methodist institution, which received its charter just three days after Highland did.

Kentucky

EFFORTS to enhance Kentucky's higher-education system ran into an unusual stumbling block in 1989 when members of the General Assembly's Tobacco Task Force threatened the University of Louisville with fiscal reprisals for adopting a policy to limit smoking on the campus.

Characterizing it as an attempt "to bite the hand that feeds them," lawmakers said that Louisville or any other public institution that enacted such restrictions would feel their wrath in 1990 when the biennial budget is drafted.

When the public huffing and puffing has ended, educators hope that their campaign to improve the quality of higher education in the Bluegrass State can get back on track. In the mid-1980's, scores of new laws were passed to improve academic quality, and the business community rallied around efforts on behalf of the state's public schools, colleges, and universities.

But more recently, a relatively stagnant economy, a resurgence of the state's conservative tradition, and strong anti-tax sentiment have combined to create a difficult situation for education at all levels.

Under Gov. Wallace G. Wilkinson, a Democrat, money has been tight. Business groups continue to be active, but their successes now are not in winning major budget increases, but in limiting budget cuts.

The governance structure in the state is somewhat unusual. The Kentucky Council on Higher Education is the statewide coordinating board. Another board governs the University of Kentucky and all of the state's community colleges, while each of seven other boards governs one institution.

Racial issues have long polarized Kentucky politics and education. The state's court-ordered desegregation plan for higher education

Continued on Following Page

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Kentucky
CONTINUED

has expired, and the Education Department is currently evaluating Kentucky's progress on that front. Black students have long complained of unfair treatment and a hostile environment at the predominantly white campuses, while supporters of Kentucky State University, a historically black institution, have accused state officials of failing to provide them with adequate funds.

Private higher education in Kentucky is dominated by relatively small liberal-arts colleges, many of which are affiliated with religious groups.

One aspect of higher education that has united Kentucky for years—the University of Kentucky basketball team—has brought controversy to the state recently. The team was penalized by the National Collegiate Athletic Association for numerous rules violations and was placed on three years' probation.

DEMOGRAPHICS

Population: 3,742,000 (Rank: 23)

Age distribution:

Up to 17	26.3%
18 to 24	11.3%
25 to 34	17.5%
35 and older	44.8%

Racial and ethnic distribution:

American Indian	0.1%
Asian	0.3%
Black	7.1%
White	92.3%
Other and unknown	0.1%
Hispanic (may be any race)	0.7%

Educational attainment of adults:

At least 4 years of high school	53.1%
At least 1 to 3 years of college	21.8%
At least 4 years of college	11.1%

Per-capita personal income: $12,822

New high-school graduates in:

1989-90 (estimate)	41,345
1999-2000 (estimate)	40,317

High-school dropout rate: 32.6%

POLITICAL LEADERSHIP

Governor: Wallace G. Wilkinson (D), term ends 1991

Governor's higher-education adviser: Jack Foster, State Capitol Building, Room 107, Frankfort 40601; (502) 564-2611

U.S. Senators: Wendell H. Ford (D), term ends 1993; Mitch McConnell (R), term ends 1991

U.S. Representatives:
4 Democrats, 3 Republicans
Jim Bunning (R), Larry J. Hopkins (R), Carroll Hubbard, Jr. (D), Romano L. Mazzoli (D), William H. Natcher (D), Carl C. Perkins (D), Harold Rogers (R)

General Assembly: Senate, 30 Democrats, 8 Republicans; House, 72 Democrats, 28 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	8
Public 2-year institutions	14
Private 4-year institutions	22
Private 2-year institutions	16
Total	60

Vocational institutions: 138

Statewide coordinating board:
Council on Higher Education
West Frankfort Office Complex
1050 U.S. 127 South, Suite 101
Frankfort 40601
(502) 564-3553
Gary S. Cox, executive director

Private-college association:
Council of Independent Kentucky Colleges and Universities
Box 668
Danville 40422
(606) 236-3533
John W. Frazer, executive director

Institution censured by the AAUP:
Murray State University

Institutions under NCAA sanctions:
Eastern Kentucky University, University of Kentucky

FACULTY MEMBERS

Full-time faculty members:

At public institutions	4,602
At private institutions	1,160

Proportion with tenure:

At public institutions	68.3%
At private institutions	54.9%

Proportion who are women:

At public institutions	28.6%
At private institutions	36.5%

Average pay of full-time professors:

At public 4-year institutions	$32,950
At public 2-year institutions	$25,083
At private 4-year institutions	$25,925
At private 2-year institutions	$18,715

STUDENTS

Enrollment:

At public 4-year institutions	93,857
At public 2-year institutions	28,162
At private 4-year institutions	23,236
At private 2-year institutions	8,096
Undergraduate	131,422
First-time freshmen	28,156
Graduate	17,445
Professional	4,484
Total	153,351

Enrollment highlights:

Women	56.7%
Full-time	63.6%
Minority	7.2%
Foreign	1.1%
10-year change in total enrollment	Up 16.6%

Degrees awarded:

Associate	5,196
Bachelor's	11,708
Master's	3,261
Doctorate	281
Professional	1,144

Residence of new students: State residents make up 85% of all new college students enrolled in Kentucky; 87% of all Kentucky residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	82.6%
Private institutions	17.4%
4-year institutions	69.6%
2-year institutions	30.4%

Proportion of students at largest public institutions who are minority-group members:

University of Kentucky	5.0%
University of Louisville	10.6%

Proportion of students at largest private institutions who are minority-group members:

Bellarmine College	2.0%
Southern Baptist Theological Seminary	4.3%

Test scores: Students averaged 18.2 on the A.C.T., which was taken by 61% of Kentucky's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,152
At public 2-year institutions	$540
At private 4-year institutions	$3,868
At private 2-year institutions	$3,126

Most expensive public institution:
University of Kentucky, $1,560

Most expensive private institution:
Centre College of Kentucky, $8,665

Expenditures:

Public institutions	$898,718,000
Private institutions	$194,873,000

State funds for higher-education operating expenses: $518,361,000

Two-year change: Up 13%

State spending on student aid:
Need-based: $13,190,000; 21,185 awards
Non–need-based: None
Other: None

Salary of chief executive of largest public 4-year campus:
David P. Roselle, University of Kentucky: $130,500 (1989-90)

Total spending on research and development by doctorate-granting universities: $78,008,000

Sources:	
Federal government	39.5%

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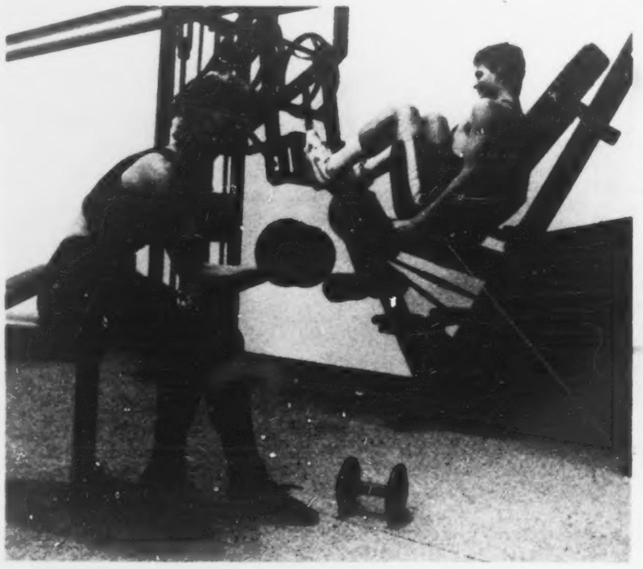

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State and local governments	13.9%
Industry	8.6%
The institution itself	34.0%
Other	4.0%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$45,944,000
GI Bill	$11,080,000
Pell Grants	$70,319,000

Total federal spending on college-and-university-based research and development: $30,801,000

Selected programs:

Department of Health and Human Services	$17,226,000
National Science Foundation	$2,587,000
Department of Defense	$959,000
Department of Agriculture	$7,627,000
Department of Energy	$1,128,000

Largest endowment:

Berea College	$219,880,000

Top fund raisers:

University of Kentucky	$18,167,000
Berea College	$10,512,000
University of Louisville	$8,296,000

MISCELLANY

★ Berea College, established in 1855 to serve needy students from Appalachia, charges no tuition but has a compulsory work program for each student to help offset the lack of tuition revenue.

★ H. Charles Grawemeyer, an alumnus and benefactor of the University of Louisville, has established annual cash prizes of $150,000 each to recognize outstanding ideas of benefit to humanity. Known as the University of Louisville Grawemeyer Awards, the prizes have been awarded in three fields: education, music composition, and "improving world order." In the future, prizes will also be given in psychology and religion.

★ The oldest higher-education institution in the state is Transylvania University, founded in 1780. Kentucky's 1857-58 legislature repealed the bill establishing Transylvania as a university, and it operated until 1865 as a high school. It has operated since as a liberal-arts college.

Louisiana

WHAT was a difficult year for college officials became even more complicated in August 1989 when the U.S. Supreme Court delayed a sweeping reorganization of Louisiana public higher education, pending an appeal of a district court's order requiring the changes as part of a desegregation plan.

The legality of Louisiana's higher-education system has been challenged by civil-rights groups and the federal government since 1970. The U.S. District Court for the Eastern District of Louisiana ruled last year that the system was illegally segregated by race and appointed Paul R. Verkuil, president of the College of William and Mary, to devise a plan to end the segregation.

In July the district court issued an order that incorporated most of the recommendations by Mr. Verkuil, which mirrored a plan supported by Gov. Buddy Roemer, a Democrat.

The order also required the elimination of the state coordinating board and the three higher-education-system boards. They would be replaced with a single governing board.

Officials at the Southern University System, the only public black-college system in the nation, were highly critical of the court order, saying it would allow the new board to ignore the interests of black students. The system's alumni association is financing an appeal to block the desegregation plan from going forward.

The uncertainty created by the court battle over the desegregation plan followed an arduous legislative session during which the Governor proposed closing half of the state's public institutions to balance the state budget.

State officials here have been grappling with perennial budget crises for most of the decade because of the decline of the oil industry and strong opposition to taxes by Louisiana voters.

When Louisiana voters in May rejected a tax-reform package proposed by Governor Roemer, he said he would be forced to make deep budget cuts in state services. Higher-education officials accurately predicted that his worst-case scenario would not come to pass, but they still had to deal with reduced financing and a rapid departure of top faculty members who had had to live with small or no salary increases in recent years.

Another major higher-education issue in Louisiana is admissions standards. The state's strong populist tradition has led most public colleges to operate on an open-admissions basis, but the desegregation order also requires that admission standards be introduced at the state's four-year institutions and at the flagship campus, Louisiana State University at Baton Rouge.

Although the vast majority of Louisiana students attend public colleges, the state has some prestigious private institutions of higher learning, which exert considerable political influence. Tulane University has long been regarded as a leader, and Dillard and Xavier Universities are respected private black colleges.

DEMOGRAPHICS

Population: 4,510,000 (Rank: 20)

Age distribution:

Up to 17	29.4%
18 to 24	11.4%
25 to 34	18.5%
35 and older	40.8%

Racial and ethnic distribution:

American Indian	0.3%
Asian	0.6%
Black	29.4%
White	69.3%
Other and unknown	0.3%
Hispanic (may be any race)	2.4%

Educational attainment of adults:

At least 4 years of high school	57.7%
At least 1 to 3 years of college	26.7%
At least 4 years of college	13.9%

Per-capita personal income: $12,292

New high-school graduates in:

1989-90 (estimate)	44,190
1999-2000 (estimate)	49,973

Continued on Following Page

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Louisiana

CONTINUED

High-school dropout rate: 39.9%

POLITICAL LEADERSHIP

Governor: Buddy Roemer (D), term ends 1992

Governor's higher-education adviser: Stephanie Desselle, P.O. Box 94004, Baton Rouge 70804; (504) 342-0908

U.S. Senators: John B. Breaux (D), term ends 1993; J. Bennett Johnston (D), term ends 1991

U.S. Representatives: 4 Democrats, 4 Republicans
Richard H. Baker (R), Lindy (Mrs. Hale) Boggs (D), James A. Hayes (D), Clyde C. Holloway (R), Jerry Huckaby (D), Bob Livingston (R), Jim McCrery (R), W.J. (Billy) Tauzin (D)

Legislature: Senate, 34 Democrats, 5 Republican; House, 86 Democrats, 18 Republicans, 1 vacancy

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	14
Public 2-year institutions	6
Private 4-year institutions	10
Private 2-year institutions	4
Total	34

Vocational institutions: 216

Statewide coordinating board:
Board of Regents
150 Riverside Mall, Suite 129
Baton Rouge 70801
(504) 342-4253
Sally Clausen, commissioner
of higher education

Private-college association:
Louisiana Association of Independent Colleges and Universities
320 Riverside Mall, Suite 104
Baton Rouge 70801
(504) 389-9885
William Arceneaux, president

Institutions censured by the AAUP: None

Institution under NCAA sanctions: Grambling State University

FACULTY MEMBERS

Full-time faculty members:

At public institutions	6,086
At private institutions	991

Proportion with tenure:

At public institutions	57.9%
At private institutions	58.6%

Proportion who are women:

At public institutions	31.4%
At private institutions	28.6%

Average pay of full-time professors:

At public 4-year institutions	$29,963
At public 2-year institutions	$25,636
At private 4-year institutions	$34,227
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	134,148
At public 2-year institutions	14,344
At private 4-year institutions	23,596
At private 2-year institutions	1,141
Undergraduate	147,524
First-time freshmen	30,631
Graduate	20,239
Professional	5,466
Total	173,229

Enrollment highlights:

Women	53.7%
Full-time	73.0%
Minority	27.6%
Foreign	3.8%
10-year change in total enrollment	Up 12.5%

Degrees awarded:

Associate	2,603
Bachelor's	16,221
Master's	3,972
Doctorate	301
Professional	1,392

Residence of new students: State residents make up 85% of all new college students enrolled in Louisiana; 88% of all Louisiana residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	85.1%
Private institutions	14.9%
4-year institutions	87.9%
2-year institutions	12.1%

Proportion of students at largest public institutions who are minority-group members:

Louisiana State University	10.8%
University of New Orleans	23.5%

Proportion of students at largest private institutions who are minority-group members:

Tulane University	13.4%
Loyola University	19.5%

Test scores: Students averaged 17.1 on the A.C.T., which was taken by 65% of Louisiana's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,341
At public 2-year institutions	$619
At private 4-year institutions	$6,812
At private 2-year institutions	n/a

Most expensive public institution: Louisiana State University Medical Center, $2,209

Most expensive private institution: Tulane University, $14,230

Expenditures:

Public institutions	$1,039,177,000
Private institutions	$353,433,000

State funds for higher-education operating expenses: $483,034,000

Two-year change: Down 3%

State spending on student aid:
Need-based: $1,964,000; 3,987 awards
Non-need-based: $714,000; 1,668 awards
Other: $6,510,000

Salary of chief executive of largest public 4-year campus: William E. Davis, Louisiana State University: $115,000 (1989-90)

Total spending on research and development by doctorate-granting universities: $148,563,000

Sources:

Federal government	36.6%
State and local governments	21.4%
Industry	4.8%
The institution itself	28.7%
Other	8.4%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$15,983,000
GI Bill	$14,809,000
Pell Grants	$115,983,000

Total federal spending on college-and-university-based research and development: $59,799,000

Selected programs:

Department of Health and Human Services	$38,613,000
National Science Foundation	$4,028,000
Department of Defense	$3,047,000
Department of Agriculture	$5,130,000
Department of Energy	$1,624,000

Largest endowment: Tulane University $197,099,000

Top fund raisers:

Tulane University	$25,712,000
Xavier University of Louisiana	$4,476,000
Dillard University	$2,251,000

MISCELLANY

★ Only one-third of the undergraduates attending public colleges in the state graduate within six years, compared with a national average of 45 per cent.

★ Xavier University of Louisiana is the only historically black Roman Catholic college in the country.

★ Tulane University, which suspended its men's basketball program because of a point-shaving and academic scandal in 1985, will begin playing the sport again this year.

★ The oldest higher-education institution in the state is Centenary College of Louisiana. It is affiliated with the United Methodist Church and was founded in 1825.

Maine

MAINE takes pride in being home to many private colleges. But at the same time, it ranks last among New England states in the proportion of residents who attend or graduate from college.

In part, that is because private liberal-arts institutions like Bates, Bowdoin, and Colby Colleges have drawn many of their students from a national pool.

To attract more Maine students to higher education, state officials have recently been pumping money into the seven-campus University of Maine System and state scholarship programs. The university also is working to extend classes and educational resources to residents in outlying areas through a new Instructional Television System and an automated reference system that links all the library catalogs into a single network that can be tapped into by computer.

The Governor, Republican John R. McKernan, Jr., also has taken an interest in promoting higher education as a tool to improve the state's economy, which has flourished in the southern part of the state but has remained rather stagnant elsewhere.

The cost of attending college continues to be an issue. The strength of the state's private colleges has led Maine to offer generous student-aid programs, which have been closely watched by legislators.

Legislators have also recently cast a skeptical eye on the free-wheeling spending of campus "discretionary funds" by some public-college presidents. Maine officials also continue to grapple with the competition between the University of Southern Maine, a fast-growing institution in Portland, and the university system's flagship campus in Orono, where faculty members fear the growth at Southern Maine could come at the expense of their programs.

DEMOGRAPHICS

Population: 1,203,000 (Rank: 38)

Age distribution:

Up to 17	25.1%
18 to 24	11.0%
25 to 34	17.1%
35 and older	46.7%

Racial and ethnic distribution:

American Indian	0.4%
Asian	0.3%
Black	0.3%
White	99.0%
Other and unknown	0.1%
Hispanic (may be any race)	0.4%

Educational attainment of adults:

At least 4 years of high school	68.7%
At least 1 to 3 years of college	29.4%
At least 4 years of college	14.4%

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Per-capita personal income: $15,106

New high-school graduates in:

1989-90 (estimate)	14,894
1999-2000 (estimate)	14,422

High-school dropout rate: 20.7%

POLITICAL LEADERSHIP

Governor: John R. McKernan, Jr. (R), term ends 1991

Governor's higher-education adviser: Sawin Millett, State House Station No. 1, Augusta 04333; (207) 289-3531

U.S. Senators: William S. Cohen (R), term ends 1991; George J. Mitchell (D), term ends 1995

U.S. Representatives:
1 Democrat, 1 Republican
Joseph E. Brennan (D), Olympia J. Snowe (R)

Legislature: Senate, 20 Democrats, 15 Republicans; House, 97 Democrats, 54 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	8
Public 2-year institutions	5
Private 4-year institutions	13
Private 2-year institutions	5
Total	31

Vocational institutions: 32

Statewide coordinating board:
University of Maine System
Board of Trustees
107 Maine Avenue
Bangor 04401
(207) 947-0336
Robert L. Woodbury, chancellor

Private-college association:
None

Institution censured by the AAUP:
Husson College

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	1,295
At private institutions	514

Proportion with tenure:

At public institutions	57.9%
At private institutions	47.6%

Proportion who are women:

At public institutions	27.6%
At private institutions	37.4%

Average pay of full-time professors:

At public 4-year institutions	$32,900
At public 2-year institutions	$24,710
At private 4-year institutions	$32,637
At private 2-year institutions	$24,664

STUDENTS

Enrollment:

At public 4-year institutions	29,887
At public 2-year institutions	5,272
At private 4-year institutions	11,437
At private 2-year institutions	958
Undergraduate	44,190
First-time freshmen	9,085
Graduate	2,818
Professional	546
Total	47,554

Enrollment highlights:

Women	56.3%
Full-time	60.5%
Minority	3.8%
Foreign	0.4%
10-year change in total enrollment	Up 18.4%

Degrees awarded:

Associate	2,030
Bachelor's	5,122
Master's	503
Doctorate	25
Professional	163

Residence of new students: State residents make up 80% of all new college students enrolled in Maine; 75% of all Maine residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	25.3%
Private institutions	74.7%
4-year institutions	95.8%
2-year institutions	4.2%

Proportion of students at largest public institutions who are minority-group members:

University of Maine	2.0%
University of Southern Maine	0.6%

Proportion of students at largest private institutions who are minority-group members:

Colby College	2.9%
Husson College	3.7%

Test scores: Students averaged 896 on the S.A.T., which was taken by 59% of Maine's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,561
At public 2-year institutions	$880
At private 4-year institutions	$9,032
At private 2-year institutions	$2,067

Most expensive public institution:
University of Maine, $2,092

Most expensive private institution:
Colby College, $14,120

Expenditures:

Public institutions	$216,737,000
Private institutions	$133,778,000

State funds for higher-education operating expenses: $162,432,000
Two-year change: Up 29%

State spending on student aid:
Need-based: $1,411,000; 3,200 awards
Non–need-based: None
Other: None

Salary of chief executive of largest public 4-year campus:
Dale W. Lick, University of Maine: $105,520 (1988-89)

Total spending on research and development by doctorate-granting universities: $16,952,000

Sources:

Federal government	45.9%
State and local governments	1.9%
Industry	12.1%
The institution itself	33.9%
Other	6.2%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$9,574,000
GI Bill	$3,829,000
Pell Grants	$12,098,000

Total federal spending on college-and-university-based research and development: $8,613,000

Selected programs:

Department of Health and Human Services	$1,261,000
National Science Foundation	$980,000
Department of Defense	$2,059,000
Department of Agriculture	$2,611,000
Department of Energy	$315,000

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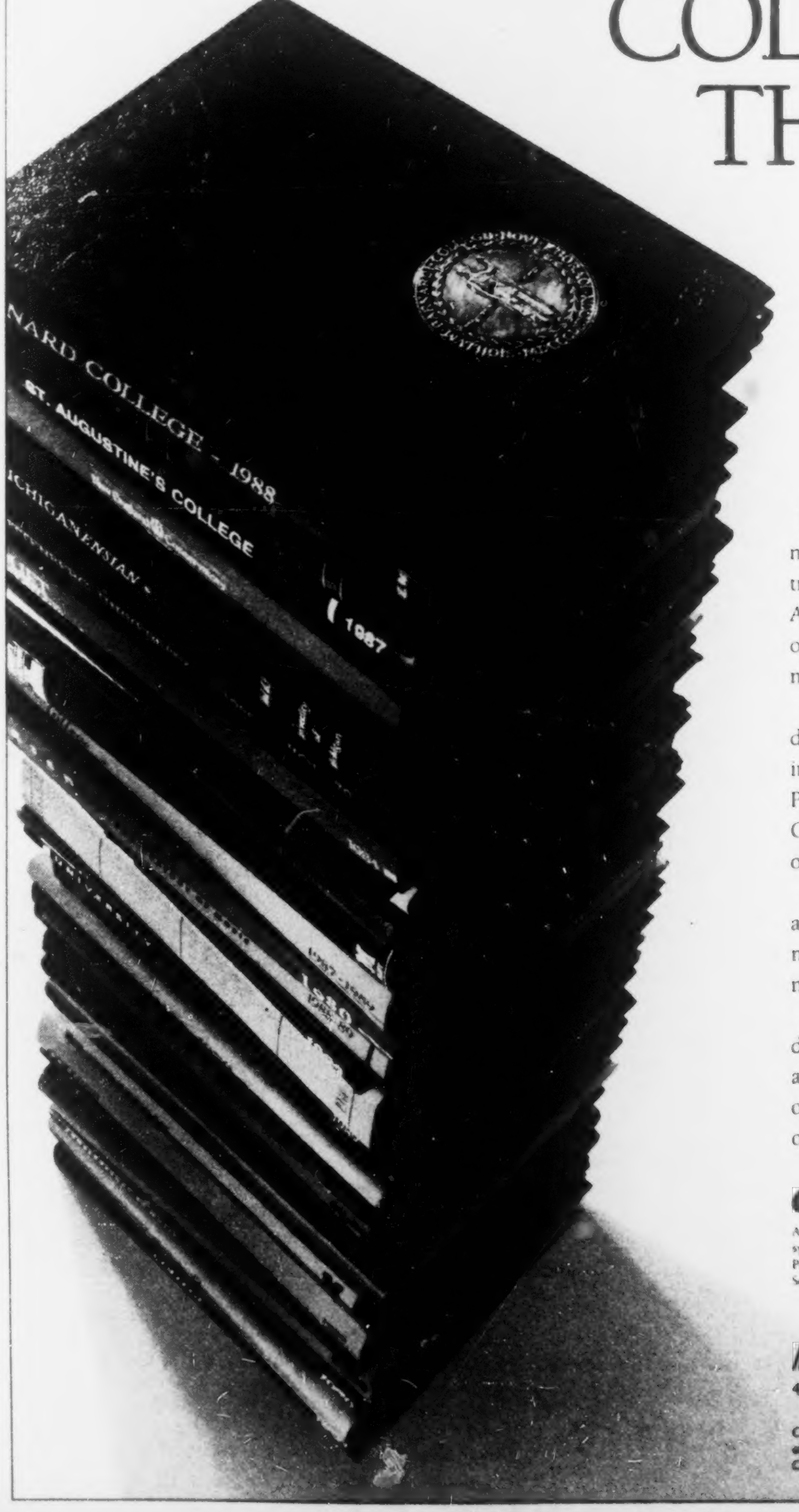

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Maine

CONTINUED

Largest endowment:

Bowdoin College	$133,639,000

Top fund raisers:

University of Maine	$9,806,000
Westbrook College	$7,834,000
Bowdoin College	$7,830,000

MISCELLANY

★ In 1858, Bowdoin College bestowed an honorary degree upon Mississippi Sen. Jefferson Davis. When Davis assumed the Presidency of the Confederacy, the college was pressured to rescind the award. At the end of the Civil War, Davis lost his freedom and his citizenship, but not his Bowdoin degree.

★ Westbrook College received about $8.2-million from the 1987 sale of Vincent van Gogh's "Irises," which brought $53.9-million at auction. John Whitney Payson, the philanthropist who sold the painting, had long planned to donate the work to the college, but said that tax-law changes and the painting's soaring value had made it impractical for him either to give away the art or to keep it.

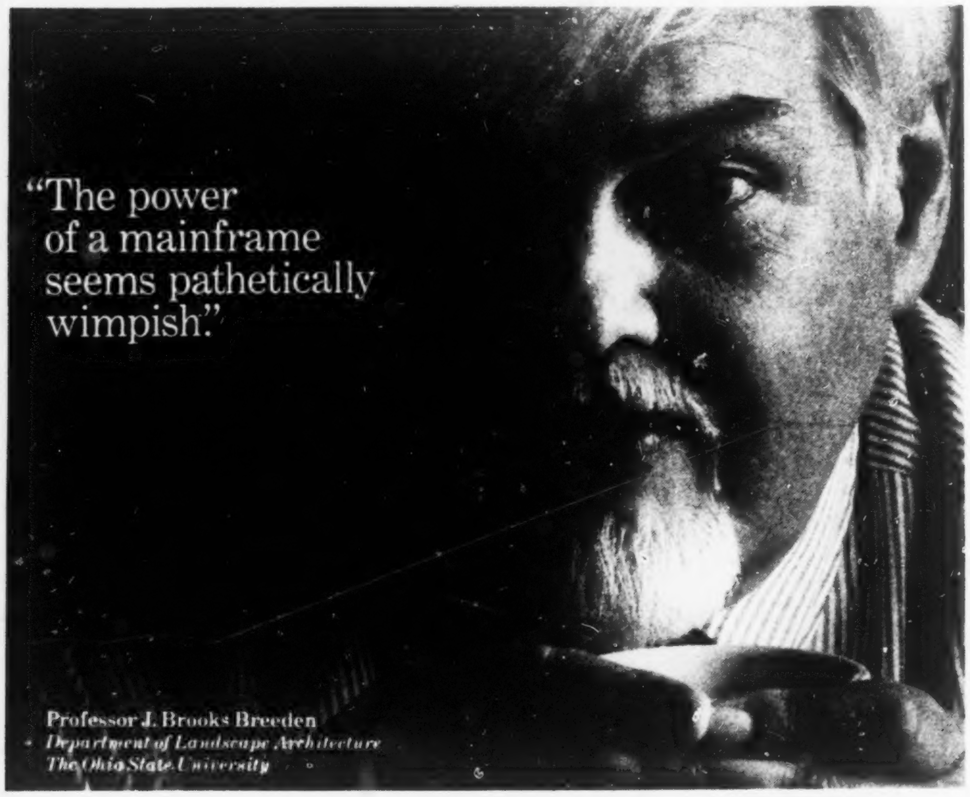
★ Geronimo! To relieve the tension of finals week, a professor at the University of Maine, Sandra L. Caron, gathered her class in an open area on the campus, where a skydiver she had hired dropped in with her exam. "They were waiting, and all of a sudden this plane came by," she said. "It was great."

★ The College of the Atlantic, a private institution in Bar Harbor that was established in 1969, offers a single degree program—in human ecology.

★ The University of Maine's two northernmost campuses, at Fort Kent and Presque Isle, enroll many students whose native language is French. They come from Quebec and parts of Maine with French-speaking populations.

★ Bowdoin is the oldest higher-education institution in Maine. It was founded in 1794.

Sources and notes appear on Page 96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AUTHORWARE

Maryland

PUBLIC higher education in Maryland is on a roll, although not without turbulence. After a grueling debate over the governance of the system last year, lawmakers and Gov. William Donald Schaefer, a Democrat, have responded with two years of substantial increases in state support.

While a thriving economy has made those increases fiscally possible, many Maryland observers say the governance changes were necessary to make the increases politically feasible. The changes brought most of the state's public colleges and universities into the University of Maryland System, strengthened the coordinating board, and more clearly defined the role of campus presidents. Community colleges and two four-year institutions remain outside the University of Maryland.

Governor Schaefer, an outspoken and impatient politician, championed the changes as a way to raise the academic quality of the institutions. While not all politicians or academic leaders share the Governor's sense of urgency, most agree that the colleges should be more competitive nationally.

Maryland's large black population is another group that closely watches higher education. Many black lawmakers say the state does not do enough to support its public black colleges or to attract black students to other institutions.

Another contentious issue in the state involves higher education in Baltimore. Residents there continue to push for more programs, but advocates of the University of Maryland at College Park fear the expansion of Baltimore's programs will hurt their institution, the state's flagship campus.

The Baltimore issue was further complicated in August 1989 when Augustus A. White, III, a Harvard physician slated to become president of the University of Maryland campus in the city, withdrew. He said the regents planned to remove some of the campus's professional schools without consulting him or the faculty members involved. In the wake of his resignation, the chairman of the university's Board of Regents resigned, and some politicians said the reform efforts of the past year had been tarnished.

Private colleges have long been extremely influential in Maryland politics. They range from St. John's College, where the curriculum is based on reading "great books," to the Johns Hopkins University, a nationally respected research institution.

For all sectors of Maryland higher education, the next year will be one of new faces. Shaila R. Aery recently became the state's Secretary of Higher Education. And both the University of Maryland System and Johns Hopkins are looking for new presidents.

DEMOGRAPHICS

Population: 4,665,000 (Rank: 18)

Age distribution:

Up to 17	24.8%
18 to 24	11.3%
25 to 34	18.0%
35 and older	45.9%

Racial and ethnic distribution:

American Indian	0.2%
Asian	1.6%
Black	22.7%
White	75.1%
Other and unknown	9.4%
Hispanic (may be any race)	1.5%

Educational attainment of adults:

At least 4 years of high school	67.4%
At least 1 to 3 years of college	34.9%
At least 4 years of college	20.4%

Per-capita personal income: $19,487

New high-school graduates in:

1989-90 (estimate)	49,623
1999-2000 (estimate)	51,207

High-school dropout rate: 25.5%

POLITICAL LEADERSHIP

Governor: William Donald Schaefer (D), term ends 1991

Governor's higher-education adviser: Laslo Boyd, State House, Annapolis 21404; (301) 974-3004

U.S. Senators: Barbara A. Mikulski (D), term ends 1993; Paul S. Sarbanes (D), term ends 1995

U.S. Representatives:
6 Democrats, 2 Republicans
Helen Delich Bentley (R), Beverly B. Byron (D), Benjamin L. Cardin (D), Roy Dyson (D), Steny H. Hoyer (D), C. Thomas McMillen (D), Kweisi Mfume (D), Constance A. Morella (R)

General Assembly: Senate, 40 Democrats, 7 Republicans; House, 125 Democrats, 16 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	13
Public 2-year institutions	19
Private 4-year institutions	21
Private 2-year institutions	3
Total	56

Vocational institutions: 210

Statewide coordinating board:
Maryland Higher Education
Commission
16 Francis Street
Annapolis 21401
(301) 974-2971
Shaila R. Aery, secretary
of higher education

Private-college association:
Maryland Independent College
and University Association
208 Duke of Gloucester Street
Annapolis 21401
(301) 269-0306
J. Elizabeth Garraway, president

Institutions censured by the AAUP:
Maryland Institute College of Art,
Morgan State University

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	5,329
At private institutions	1,495

Proportion with tenure:

At public institutions	65.8%
At private institutions	49.6%

Proportion who are women:

At public institutions	34.0%
At private institutions	28.6%

Average pay of full-time professors:

At public 4-year institutions	$37,886
At public 2-year institutions	$34,109
At private 4-year institutions	$38,188
At private 2-year institutions	$22,421

STUDENTS

Enrollment:

At public 4-year institutions	107,196
At public 2-year institutions	96,515
At private 4-year institutions	34,799
At private 2-year institutions	852
Undergraduate	204,581
First-time freshmen	30,763
Graduate	31,005
Professional	3,776
Total	239,362

Enrollment highlights:

Women	56.0%
Full-time	46.7%
Minority	21.1%
Foreign	2.4%
10-year change in total enrollment	Up 10.5%

Degrees awarded:

Associate	7,129
Bachelor's	16,760
Master's	5,334
Doctorate	690
Professional	968

Residence of new students: State residents make up 83% of all new college students enrolled in Maryland; 79% of all Maryland residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	91.3%
Private institutions	8.7%
4-year institutions	59.0%
2-year institutions	41.0%

Proportion of students at largest public institutions who are minority-group members:

University of Maryland at College Park	17.4%
Towson State University	11.0%

Proportion of students at largest private institutions who are minority-group members:

Johns Hopkins University	11.5%
Loyola College	6.4%

Test scores: Students averaged 908 on the S.A.T., which was taken by 62% of Maryland's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,682
At public 2-year institutions	$906
At private 4-year institutions	$7,274
At private 2-year institutions	$4,660

Most expensive public institution:
University of Maryland University College, $3,390

Most expensive private institution:
Johns Hopkins University, $14,360

Expenditures:

Public institutions	$1,064,430,000
Private institutions	$901,948,000

State funds for higher-education operating expenses: $695,261,000

Two-year change: Up 22%

State spending on student aid:
Need-based: $12,998,000; 15,360 awards
Non-need-based: $4,634,000; 2,864 awards
Other: $241,000

Salary of chief executive of largest public 4-year campus:
William E. Kirwan, University of Maryland at College Park: $127,440 (1989-90)

Total spending on research and development by doctorate-granting universities: $709,985,000

Sources:

Federal government	81.0%
State and local governments	7.1%
Industry	3.6%
The institution itself	7.4%
Other	0.9%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$30,599,000
GI Bill	$10,658,000
Pell Grants	$44,701,000

Total federal spending on college-and-university-based research and development: $460,057,000

Selected programs:

Department of Health and Human Services	$163,166,000
National Science Foundation	$21,593,000
Department of Defense	$241,061,000
Department of Agriculture	$4,001,000
Department of Energy	$8,025,000

Largest endowment:

Johns Hopkins University	$508,399,000

Top fund raisers:

Johns Hopkins University	$70,595,000
University of Maryland	$20,852,000
Hood College	$4,357,000

MISCELLANY

★ St. Mary's College of Maryland boasts the only woman currently playing on a baseball team in the National Collegiate Athletic Association.

★ The Johns Hopkins University Press, which was established in 1878, is the oldest university press in continuous operation in the United States.

★ The oldest institution of higher education in Maryland is Washington College, founded in 1782.

Massachusetts

MASSACHUSETTS is the birthplace of American higher education and, arguably, the mecca for higher learning throughout the world.

It owes that renown to the reputation of its many prestigious private institutions, including research universities like Harvard, Tufts, and the Massachusetts Institute of Technology, and elite colleges like Amherst, Smith, Wellesley, and Williams.

Those institutions and their programs attract top students from around the world. Harvard's library is generally considered to be

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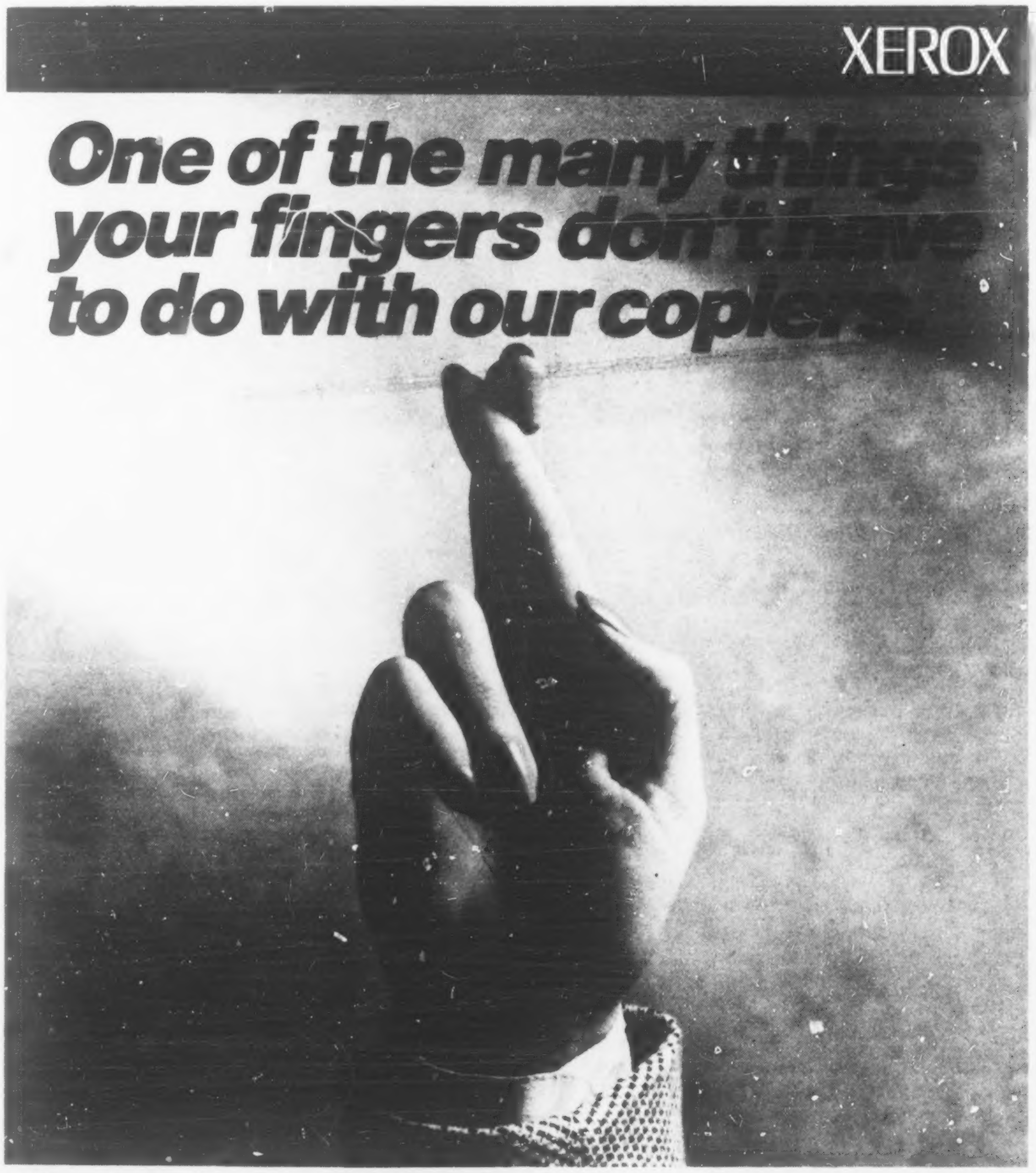
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Massachusetts

CONTINUED

the leading university collection in the country. The many high-technology companies that have sprung from the inventions of M.I.T. laboratories attest to that institution's vigor and innovativeness.

Massachusetts is also the only state where more students attend private institutions than public ones. That fact helps to explain the state's generous financial-aid program for private-college students.

That the clout of private colleges so influences state education and spending policies is a source of much frustration to many public-college leaders, who say their younger institutions are not getting their due.

Many officials at public colleges have also grown impatient with the state's Governor, Michael S. Dukakis. As the Democratic candidate for President in 1988, Mr. Dukakis often cited the important role higher education had played in the economic resurgence of his state. But after his defeat he did not spare the institutions from deep budget cuts to reduce a debilitating state deficit.

Some of the public institutions have self-inflicted wounds, as well. Several state colleges and community colleges have been plagued by financial scandals stemming from the use of funds held by college foundations.

A disagreement over how and whether the University of Massachusetts should be restructured has also given some people the impression that a turf war is under way in public higher education. The regents are the governing board for all of public higher education. Each of the 27 public institutions has its own board of trustees.

In recent years, institutions of higher education have been showing renewed interest in the quality of public-school teaching. The state has just initiated more stringent teacher-preparation requirements and sanctioned a model program that will allow Boston University, a private institution, to operate the public schools in the city of Chelsea.

DEMOGRAPHICS

Population: 5,863,000 (Rank: 13)

Age distribution:

Up to 17	22.6%
18 to 24	11.4%
25 to 34	18.4%
35 and older	47.5%

Racial and ethnic distribution:

American Indian	0.2%
Asian	0.9%
Black	3.9%
White	93.7%
Other and unknown	1.3%
Hispanic (may be any race)	2.5%

Educational attainment of adults:

At least 4 years of high school	72.2%
At least 1 to 3 years of college	35.8%
At least 4 years of college	20.0%

Per-capita personal income: $20,816

New high-school graduates in:

1989-90 (estimate)	62,399
1999-2000 (estimate)	59,476

High-school dropout rate: 23.5%

POLITICAL LEADERSHIP

Governor: Michael S. Dukakis (D), term ends 1991

Governor's higher-education adviser: Robert B. Schwartz, State House, Room 173, Boston 02133; (617) 727-0770

U.S. Senators: Edward M. Kennedy (D), term ends 1995; John F. Kerry (D), term ends 1991

U.S. Representatives:
10 Democrats, 1 Republican
Chester G. Atkins (D), Silvio O. Conte (R), Brian J. Donnelly (D), Joseph D. Early (D), Barney Frank (D), Joseph P. Kennedy, II (D), Edward J. Markey (D), Nicholas Mavroules (D), Joe Moakley (D), Richard E. Neal (D), Gerry E. Studds (D)

General Court: Senate, 32 Democrats, 8 Republicans; House, 128 Democrats, 32 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	14
Public 2-year institutions	17
Private 4-year institutions	72
Private 2-year institutions	17
Total	120

Vocational institutions: 223

Statewide coordinating board:
Massachusetts Board of Regents
One Ashburton Place, Room 1401
Boston 02108
(617) 727-7785
Franklyn G. Jenifer, chancellor

Private-college association:
Association of Independent Colleges and Universities in Massachusetts
11 Beacon Street, Suite 1224
Boston 02108
(617) 742-5147
Clare M. Cotton, president

Institutions censured by the AAUP:
American International College,
Bridgewater State College,
Nichols College

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	5,676
At private institutions	9,612

Proportion with tenure:

At public institutions	72.5%
At private institutions	57.0%

Proportion who are women:

At public institutions	31.4%
At private institutions	27.1%

Average pay of full-time professors:

At public 4-year institutions	$42,187
At public 2-year institutions	$30,331
At private 4-year institutions	$42,128
At private 2-year institutions	$24,007

STUDENTS

Enrollment:

At public 4-year institutions	113,440
At public 2-year institutions	73,651
At private 4-year institutions	220,982
At private 2-year institutions	15,843
Undergraduate	342,575
First-time freshmen	77,906
Graduate	68,172
Professional	13,169
Total	423,916

Enrollment highlights:

Women	54.9%
Full-time	62.7%
Minority	9.6%
Foreign	4.1%
10-year change in total enrollment	Up 12.9%

Degrees awarded:

Associate	13,617
Bachelor's	41,555
Master's	15,077
Doctorate	1,908
Professional	3,732

Residence of new students: State residents make up 71% of all new college students enrolled in Massachusetts; 81% of all Massachusetts residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	40.5%
Private institutions	59.5%
4-year institutions	71.3%
2-year institutions	28.7%

Proportion of students at largest public institutions who are minority-group members:

University of Massachusetts at Amherst	8.2%
University of Lowell	4.7%

Proportion of students at largest private institutions who are minority-group members:

Northeastern University	10.9%
Boston University	9.1%

Test scores: Students averaged 906 on the S.A.T., which was taken by 72% of Massachusetts' high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,388
At public 2-year institutions	$750
At private 4-year institutions	$8,953
At private 2-year institutions	$5,602

Most expensive public institution:
University of Massachusetts at Amherst, $2,580

Most expensive private institution:
Hampshire College, $14,960

Expenditures:

Public institutions	$980,585,000
Private institutions	$3,544,867,000

State funds for higher-education operating expenses: $868,426,000

Two-year change: Up 6%

State spending on student aid:
Need-based: $69,318,000; 52,898 awards
Non-need-based: $2,150,000; 1,730 awards
Other: $21,351,000

Salary of chief executive of largest public 4-year campus:
Joseph D. Duffey, University of Massachusetts at Amherst: $109,000 (1989-90)

Total spending on research and development by doctorate-granting universities: $719,072,000

Sources:

Federal government	74.6%
State and local governments	2.6%
Industry	8.3%
The institution itself	5.1%
Other	9.4%

Federal spending on education and student aid (selected programs).

Vocational and adult education	$37,062,000
GI Bill	$9,857,000
Pell Grants	$59,738,000

Total federal spending on college-and-university-based research and development: $536,122,000

Selected programs:

Department of Health and Human Services	$248,293,000
National Science Foundation	$93,325,000
Department of Defense	$90,664,000
Department of Agriculture	$14,851,000
Department of Energy	$53,362,000

Largest endowment:

Harvard University	$4,155,778,000

Top fund raisers:

Harvard University	$155,105,000
Massachusetts Institute of Technology	$96,902,000
Boston University	$30,008,000

MISCELLANY

★ Framingham State College, founded in 1839 and this year celebrating its 150th anniversary, claims to be the nation's first state-supported "normal" school for training teachers.

★ Lasell Junior College, founded in 1851, is the oldest private junior college in the United States.

★ The John F. Kennedy School of Government at Harvard University frequently welcomes prominent politicians who are between jobs to serve on its faculty. Among such faculty members have been Gov. Michael S. Dukakis, the 1988 Democratic Presidential nominee, and Attorney General Dick Thornburgh, the former Republican Governor of Pennsylvania.

★ This year the Massachusetts Board of Regents of Higher Education adopted a policy to condemn racism on college campuses and to require the state's public institutions to enact their own policies to foster racial and religious tolerance.

★ Tue Nguyen, a 27-year-old Vietnamese refugee, received his seventh degree from the Massachusetts Institute of Technology in 1989. His latest degree is a doctorate in nuclear engineering; his collection includes bachelor's degrees in computer science and engineering, electrical engineering, mathematics, nuclear engineering, and physics; and a master's degree in nuclear engineering.

★ Harvard University has a 10,000-piece Collection of Historical Scientific Instruments filled with such equipment as a 1550 sundial and one of the world's earliest telephones.

★ In a controversial move, Boston University plans to buy life-insurance policies for students. Each policy will pay $350,000 to the university when the insured individual dies. President John R. Silber, the university's president, has said the university could reap $350-million a year.

★ Harvard University, founded in 1636, is the oldest in the country.

Michigan

THE TOP ISSUES in higher education in Michigan are top issues throughout the country: finding ways to attract more students to college, helping them pay for it, and insuring that they receive a good education.

For the last 10 years, state officials have tried to develop higher-education policies based on those goals with a long-term aim of weaning Michigan from its automotive-industry–based economy.

To some measure, the state has succeeded, particularly during the mid-1980's. The University of Michigan, a national research institution, and the state's other universities helped the process by developing new technologies to boost Michigan's traditional and emerging industries. But money is still not plentiful, a fact that forces state colleges to watch their budgets carefully.

In the past year racial tensions on some campuses have ignited debates about the need for affirmative-action programs, anti-racism policies, and curricular changes as ways to make higher-education institutions more hospitable to minority students, particularly those from inner-city areas of Detroit.

Higher-education officials also have been in the midst of a debate over tuition policy.

Michigan's colleges and universities suffered along with the rest of the state during the recession of the late 1970's and early 80's, and tuition rates rose during those years.

More recently, Gov. James J. Blanchard, a Democrat, has asked trustees to tighten their financial belts. He has criticized some university boards for approving tuition increases as high as 19 per cent, and threatened to veto budget items for universities that do not follow his advice on tuition policy.

Governor Blanchard's much-discussed plan that allows parents to "pre-pay" their children's college tuition has focused national attention on Michigan. The state will be closely watched as the children whose parents have already paid their tuition approach college age.

The Governor's tuition plan was hotly debated in the Michigan Legislature, as are most measures that affect the state's colleges and universities. Indeed it is difficult to shape education policy in Michigan because the state has no statewide governing board.

The institutional governing boards are highly autonomous—particularly the three whose members are selected in statewide partisan elections: the University of Michigan, Michigan State University, and Wayne State University. Ten other boards for four-year universities are appointed by the Governor, and local boards run the community colleges.

DEMOGRAPHICS

Population: 9,266,000 (Rank: 8)

Age distribution:

Up to 17	26.5%
18 to 24	11.3%
25 to 34	17.8%
35 and older	44.4%

Racial and ethnic distribution:

American Indian	0.5%
Asian	0.7%
Black	12.9%
White	85.2%
Other and unknown	0.7%
Hispanic (may be any race)	1.8%

Educational attainment of adults:

At least 4 years of high school	68.0%
At least 1 to 3 years of college	30.0%
At least 4 years of college	14.3%

Per-capita personal income: $16,552

New high-school graduates in:

1989-90 (estimate)	111,185
1999-2000 (estimate)	106,849

High-school dropout rate: 37.6%

POLITICAL LEADERSHIP

Governor: James J. Blanchard (D), term ends 1991

Governor's higher-education adviser: Thomas Baldini, State Capitol Building, Lansing 48913; (517) 373-3423

U.S. Senators: Carl Levin (D), term ends 1991; Donald W. Riegle, Jr. (D), term ends 1995

U.S. Representatives:
11 Democrats, 7 Republicans
Wm. S. Broomfield (R), David E. Bonior (D), Bob Carr (D), John Conyers, Jr. (D), Geo. W. Crockett, Jr. (D), Robert W. Davis (R), John D. Dingell (D), William D. Ford (D), Paul B. Henry (R), Dennis M. Hertel (D), Dale E. Kildee (D), Sander M. Levin (D), Carl D. Pursell (R), Bill Schuette (R), Bob Traxler (D), Frederick S. Upton (R), Guy Vander Jagt (R), Howard Wolpe (D)

Legislature: Senate, 18 Democrats, 20 Republicans; House, 61 Democrats, 49 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	15
Public 2-year institutions	31
Private 4-year institutions	49
Private 2-year institutions	8
Total	103

Vocational institutions: 356

Statewide coordinating board:
State Department of Education
P.O. Box 30008
Lansing 48909
(517) 335-4933

Gary D. Hawks, associate superintendent for postsecondary education

Private-college association:
Association of Independent Colleges and Universities of Michigan
650 Michigan National Tower
Lansing 48933
(517) 372-9160
Edward O. Blews, Jr., president

Institutions censured by the AAUP:
Hillsdale College, Olivet College, University of Detroit

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	11,522
At private institutions	2,229

Proportion with tenure:

At public institutions	75.2%
At private institutions	60.3%

Proportion who are women:

At public institutions	24.7%
At private institutions	28.2%

Average pay of full-time professors:

At public 4-year institutions	$39,294
At public 2-year institutions	$36,689
At private 4-year institutions	$28,655
At private 2-year institutions	$23,914

STUDENTS

Enrollment:

At public 4-year institutions	244,288
At public 2-year institutions	215,025
At private 4-year institutions	72,557
At private 2-year institutions	3,616
Undergraduate	471,061
First-time freshmen	94,593
Graduate	54,823
Professional	9,602
Total	535,486

Enrollment highlights:

Women	54.2%
Full-time	50.5%
Minority	12.6%
Foreign	2.3%
10-year change in total enrollment	Up 11.2%

Degrees awarded:

Associate	21,834
Bachelor's	38,181
Master's	11,534
Doctorate	1,321
Professional	2,504

Residence of new students: State residents make up 93% of all new college students enrolled in Michigan; 92% of all Michigan residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	81.9%
Private institutions	18.1%
4-year institutions	54.7%
2-year institutions	45.3%

Proportion of students at largest public institutions who are minority-group members:

Michigan State University	8.6%
University of Michigan at Ann Arbor	11.7%

Proportion of students at largest private institutions who are minority-group members:

University of Detroit	19.3%
Lawrence Institute of Technology	10.2%

Test scores: Students averaged 18.8 on the A.C.T., which was taken by 63% of Michigan's high-school seniors.

Continued on Following Page

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Michigan
CONTINUED

MONEY

Average tuition and fees:

At public 4-year institutions	$1,877
At public 2-year institutions	$917
At private 4-year institutions	$5,093
At private 2-year institutions	$3,648

Most expensive public institution:
University of Michigan at Ann Arbor, $3,288

Most expensive private institution:
Kalamazoo College, $10,686

Expenditures:

Public institutions	$2,946,336,000
Private institutions	$447,436,000

State funds for higher-education operating expenses: $1,338,033,000

Two-year change: Up 9%

State spending on student aid:
Need-based: $73,227,000; 52,799 awards
Non–need-based: None
Other: $1,182,000

Salary of chief executive of largest public 4-year campus:
John A. DiBiaggio, Michigan State University: $135,000 (1988-89)

Total spending on research and development by doctorate-granting universities: $396,786,000

Sources:

Federal government	52.4%
State and local governments	7.6%
Industry	6.3%
The institution itself	26.2%
Other	7.5%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$50,052,000
GI Bill	$19,607,000
Pell Grants	$143,382,000

Total federal spending on college-and-university-based research and development: $213,721,000

Selected programs:

Department of Health and Human Services	$121,764,000
National Science Foundation	$39,162,000
Department of Defense	$15,521,000
Department of Agriculture	$9,313,000
Department of Energy	$8,300,000

Largest endowment:

University of Michigan	$346,337,000

Top fund raisers:

University of Michigan	$68,034,000
Michigan State University	$43,340,000
Wayne State University	$17,758,000

MISCELLANY

★ Michigan State University students looking for a job or an internship overseas may use the institution's international job-placement service, one of the first of its kind.

★ Hope College has a Dutch heritage. Affiliated with the Reformed Church in America, Hope was established in 1866 to serve settlers from the Netherlands who had founded the town of Holland on Lake Michigan.

Sources and notes appear on Page 96

★ The University of Michigan has the largest college football stadium in the country. It holds 101,701 fans.

★ The University of Michigan is home to the Institute for Social Research, possibly the biggest, most widely used source of social, demographic, and political data for researchers, next to the Census Bureau.

★ Michigan has a strong foundation presence: The W. K. Kellogg Foundation, a big higher-education grant maker, is in Battle Creek; the Kresge Foundation, one of the few foundations that give grants for construction, is in Troy; and the Charles Stewart Mott Foundation is in Flint.

★ Michigan State University administers the Japan Center for Michigan Universities, located in the prefecture of Shiga, which offers programs in Japanese language and culture.

★ For the 1989-90 academic year, fees at Suomi College are nearly $2,000 lower than in 1988-89. College administrators abandoned a plan to peg increases to the inflation rate and decided instead to cut costs.

★ The oldest institution of higher education in the state is the University of Michigan, founded in 1817.

Minnesota

NILS HASSELMO'S first big task as president of the University of Minnesota was convincing the Governor and state legislators that the institution was straightening out its management problems.

Efforts to enhance the quality of programs at the flagship institution were dwarfed by the discovery in 1988 that Kenneth H. Keller, Mr. Hasselmo's predecessor, had spent $1.5-million of the university's money to remodel his university-owned home. Mr. Keller resigned under pressure.

Although Gov. Rudy Perpich, a Democrat, is a staunch supporter of education, he said he would give the institution only the equivalent of a cost-of-living increase until he was convinced that the university's financial house was in order. Furthermore, he appointed a panel to study the university's financial operations.

But with the aplomb of a skilled politician, Mr. Hasselmo, formerly the senior vice-president for academic affairs at the University of Arizona, defused the issue. He appointed Gordon (Gus) Donhowe, a former finance commissioner in Minnesota and vice-chairman of Governor Perpich's panel, as his senior vice-president for finance and operations and made the adoption of that panel's recommendations his primary responsibility.

Shortly after Mr. Donhowe was appointed, the Governor added an additional $17-million to his proposed budget for the university.

And in the biennial budget adopted in 1989, higher education, including the university, received double-digit increases and state lawmakers shifted their attention to improving the quality of higher education in the state's metropolitan areas.

A study commissioned by the state coordinating board found that the Minneapolis–St. Paul area was conspicuous among the nation's up-and-coming urban centers because it lacked a strong research university. The report recommended changing the missions of the University of Minnesota–Twin Cities and Metropolitan State University. The University of Minnesota would focus on science and technology and develop stronger ties to industry, while Metropolitan State would expand its undergraduate program. The Legislature has asked the Minnesota Higher Education Coordinating Board to review the study and develop a plan to put its recommendations into effect.

The coordinating board conducts statewide planning for all the systems. While the board is not powerful, it has been influential because of the high quality of its studies on policy issues.

Private higher education is also healthy in Minnesota. The state has some nationally known liberal-arts institutions, such as Carleton College, as well as many colleges affiliated with Lutheran groups. The private colleges have an effective lobby, particularly for a state outside of the Northeast.

DEMOGRAPHICS

Population: 4,298,000 (Rank: 21)

Age distribution:

Up to 17	26.0%
18 to 24	10.7%
25 to 34	18.4%
35 and older	44.9%

Racial and ethnic distribution:

American Indian	0.9%
Asian	0.8%
Black	1.3%
White	96.7%
Other and unknown	0.3%
Hispanic (may be any race)	0.8%

Educational attainment of adults:

At least 4 years of high school	73.1%
At least 1 to 3 years of college	34.5%
At least 4 years of college	17.4%

Per-capita personal income: $16,674

New high-school graduates in:

1989-90 (estimate)	53,192
1999-2000 (estimate)	60,810

High-school dropout rate: 9.4%

POLITICAL LEADERSHIP

Governor: Rudy Perpich (D), term ends 1991

Governor's higher-education adviser: Ruth E. Randall, 550 Cedar Street, Capitol Square No. 712, St. Paul 55101; (612) 296-2358

U.S. Senators: Rudy Boschwitz (R), term ends 1991; Dave Durenberger (R), term ends 1995

U.S. Representatives:
5 Democrats, 3 Republicans
Bill Frenzel (R), James L. Oberstar (D), Timothy J. Penny (D), Martin Olav Sabo (D), Gerry Sikorski (D), Arlan Stangeland (R), Bruce F. Vento (D), Vin Weber (R)

Legislature: Senate, 45 Democrats, 22 Republicans; House, 80 Democrats, 54 Republicans

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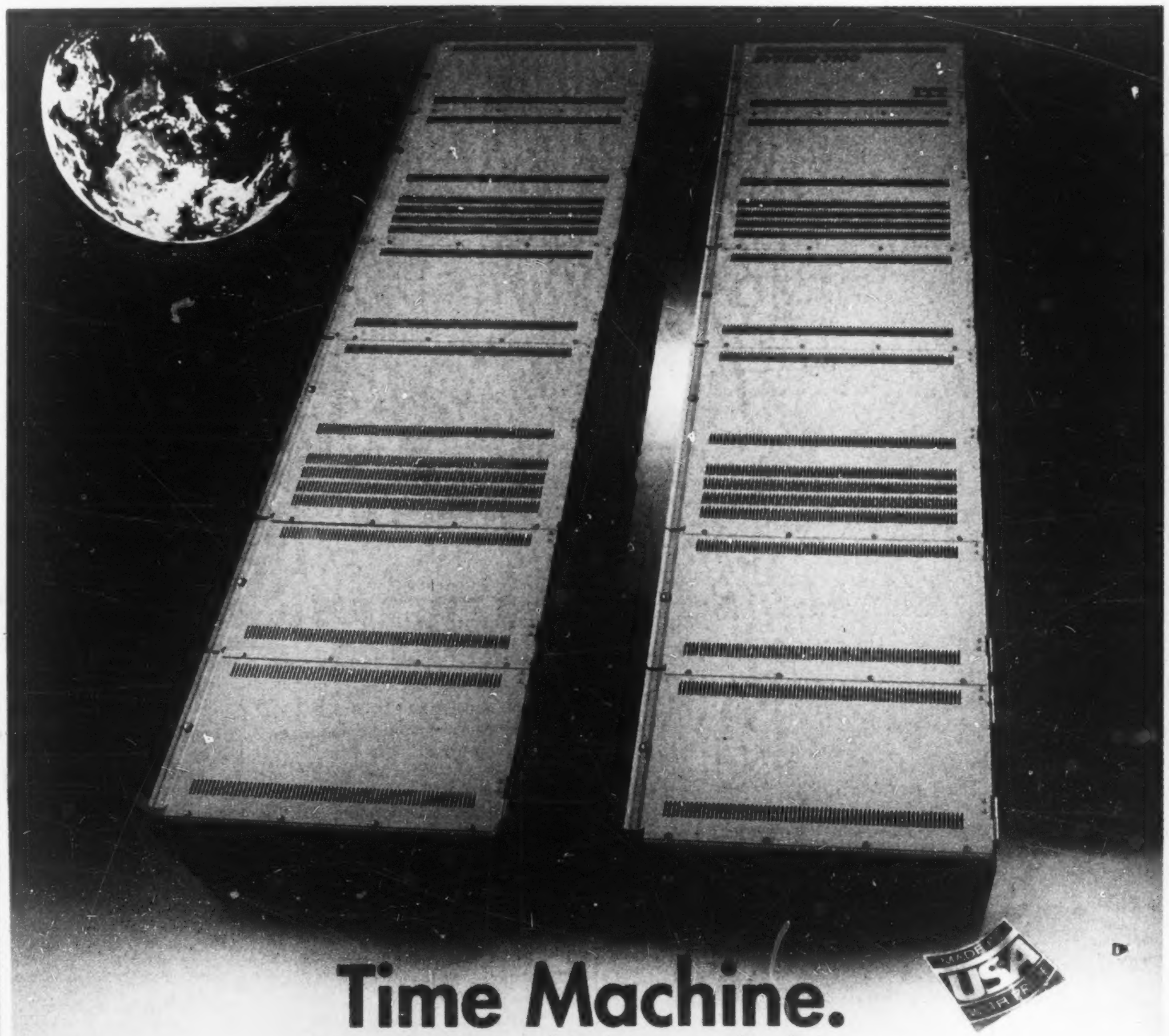

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Minnesota

CONTINUED

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	10
Public 2-year institutions	23
Private 4-year institutions	33
Private 2-year institutions	11
Total	77

Vocational institutions: 138

Statewide coordinating board:
Higher Education Coordinating Board
550 Cedar Street, Room 400
St. Paul 55101
(612) 296-9665
David R. Powers, executive director

Private-college association:
Minnesota Private College Council
Park Square Court, Suite 560
400 Sibley Street
St. Paul 55101
(612) 228-9061
David B. Laird, Jr., president

Institutions censured by the AAUP:
None

Institution under NCAA sanctions:
University of Minnesota–Twin Cities

FACULTY MEMBERS

Full-time faculty members:

At public institutions	4,537
At private institutions	2,207

Proportion with tenure:

At public institutions	75.0%
At private institutions	59.1%

Proportion who are women:

At public institutions	23.7%
At private institutions	28.8%

Average pay of full-time professors:

At public 4-year institutions	$38,692
At public 2-year institutions	$33,339
At private 4-year institutions	$31,694
At private 2-year institutions	$25,269

STUDENTS

Enrollment:

At public 4-year institutions	132,316
At public 2-year institutions	53,780
At private 4-year institutions	46,306
At private 2-year institutions	4,810
Undergraduate	207,882
First-time freshmen	46,716
Graduate	23,628
Professional	5,702
Total	237,212

Enrollment highlights:

Women	53.8%
Full-time	60.8%
Minority	4.2%
Foreign	2.1%
10-year change in total enrollment	Up 25.7%

Degrees awarded:

Associate	7,654
Bachelor's	20,667
Master's	3,607
Doctorate	529
Professional	1,529

Residence of new students: State residents make up 84% of all new college students enrolled in Minnesota; 81% of all Minnesota residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	80.4%
Private institutions	19.6%
4-year institutions	73.3%
2-year institutions	26.7%

Proportion of students at largest public institutions who are minority-group members:

University of Minnesota–Twin Cities	5.4%
Mankato State University	2.1%

Proportion of students at largest private institutions who are minority-group members:

College of Saint Thomas	2.8%
Saint Olaf College	2.2%

Test scores: Students averaged 19.9 on the A.C.T., which was taken by 44% of Minnesota's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,814
At public 2-year institutions	$1,229
At private 4-year institutions	$6,843
At private 2-year institutions	$1,908

Most expensive public institution:
University of Minnesota–Twin Cities, $2,334

Most expensive private institution:
Carleton College, $14,070

Expenditures:

Public institutions	$1,324,691,000
Private institutions	$521,441,000

State funds for higher-education operating expenses: $851,462,000

Two-year change: Up 10%

State spending on student aid:
Need-based: $62,000,000; 63,667 awards
Non-need-based: None
Other: $2,640,000

Salary of chief executive of largest public 4-year campus:
Nils Hasselmo, University of Minnesota–Twin Cities: $146,500 (1989-90)

Total spending on research and development by doctorate-granting universities: $222,381,000

Sources:

Federal government	49.0%
State and local governments	16.8%
Industry	5.0%
The institution itself	17.7%
Other	11.5%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$28,869,000
GI Bill	$14,111,000
Pell Grants	$91,425,000

Total federal spending on college-and-university-based research and development: $121,588,000

Selected programs:

Department of Health and Human Services	$82,700,000
National Science Foundation	$16,386,000
Department of Defense	$4,059,000
Department of Agriculture	$6,461,000
Department of Energy	$4,778,000

Largest endowment:
University of Minnesota $227,210,000

Top fund raisers:

University of Minnesota	$109,533,000
Mayo Medical School	$26,687,000
College of Saint Thomas	$7,212,000

MISCELLANY

★ A 70-person Commission on Women at the University of Minnesota is planning to restructure the curriculum "to include the feminist perspective, professional development for female faculty members, and administrative accountability for transforming the campus climate."

★ More women in the 1989 graduating class of Winona State University wore low-heeled shoes than in any year since 1980, and facial hair among men at the university was on the decline—with 29 per cent of the male graduates wearing mustaches compared with 48 per cent in 1978. The 13th annual "Hair and Heels" survey was completed by J. H. Foegen, a professor of business at the university.

★ Minnesotans battle over which institution of higher education is the oldest in the state. The University of Minnesota–Twin Cities was chartered in 1851 but did not admit a freshman class until 1869. Hamline University slipped in with its charter in 1854, and commenced classes that same year.

Mississippi

RAY MABUS says he learned one important lesson early in his term as Governor of Mississippi: "Every company deciding where to put a new plant asks about teachers as well as taxes, about education as well as transportation."

As a result, Governor Mabus, a Democrat and an alumnus of Johns Hopkins and Harvard Universities, has made improving education a top priority. He has already led a successful fight to obtain more money for faculty salaries and long-postponed renovations on many campus buildings. The two-year colleges and universities in the state are trying to develop a standardized core curriculum to make it easier to transfer.

Long-term financial support of reforms may be difficult to sustain, because the state economy has been hurt by declines in income from oil and agriculture.

Further, higher-education officials say the welfare of their system depends on improvements in the public schools, and the state will probably face battles over reforms in teacher training.

The legacy of segregation also threatens reform. Segregation in Mississippi's colleges prompted the filing of the Adams case on behalf of black students and taxpayers in states with segregated higher-education systems. The state is still in court over the issue, and the enrollment and graduation rates of black students remain low.

Mississippi is home to three predominantly black public universities—Alcorn State, Jackson State, and Mississippi Valley State Universities—as well as to several black private colleges and two-year institutions.

The Board of Trustees of State Institutions of Higher Learning serves as both a coordinating board and the top governing body for the eight four-year colleges and universities. The State Board for Community and Junior Colleges serves the same function for two-year institutions, which also are run by local officials.

Private higher education in Mississippi is offered primarily by small, religious institutions.

DEMOGRAPHICS

Population: 2,680,000 (Rank: 31)

Age distribution:

Up to 17	29.8%
18 to 24	11.6%
25 to 34	16.5%
35 and older	42.1%

Racial and ethnic distribution:

American Indian	0.3%
Asian	0.3%
Black	35.2%
White	64.1%
Other and unknown	0.1%
Hispanic (may be any race)	1.0%

Educational attainment of adults:

At least 4 years of high school	54.8%
At least 1 to 3 years of college	25.6%
At least 4 years of college	12.3%

Per-capita personal income: $11,116

New high-school graduates in:

1989-90 (estimate)	27,884
1999-2000 (estimate)	27,654

High-school dropout rate: 35.2%

POLITICAL LEADERSHIP

Governor: Ray Mabus (D), term ends 1992

Governor's higher-education adviser: Olon Ray, State Capitol, P.O. Box 139, Jackson 39205; (601) 359-2968

U.S. Senators: Thad Cochran (R), term ends 1991; Trent Lott (R), term ends 1995

U.S. Representatives:
4 Democrats, 0 Republicans, 1 vacancy
Mike Espy (D), G.V. (Sonny) Montgomery (D), Mike Parker (D), Jamie L. Whitten (D)

Legislature: Senate, 46 Democrats, 6 Republicans; House, 113 Democrats, 9 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	9
Public 2-year institutions	20
Private 4-year institutions	12
Private 2-year institutions	6
Total	47

Vocational institutions: 58

Statewide coordinating board:
Board of Trustees of State Institutions of Higher Learning
P.O. Box 2336
Jackson 39225
(601) 982-6611
W. Ray Cleere, commissioner

Private-college association:
Mississippi Association of Independent Colleges
P.O. Drawer 1198
Clinton 39060
(601) 925-3400
Johnnie Ruth Hudson, executive director

Institutions censured by the AAUP:
None

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	4,535
At private institutions	293

Proportion with tenure:

At public institutions	52.5%
At private institutions	40.0%

Proportion who are women:

At public institutions	37.3%
At private institutions	39.2%

Average pay of full-time professors:

At public 4-year institutions	$29,828
At public 2-year institutions	$23,566
At private 4-year institutions	$22,873
At private 2-year institutions	$15,994

STUDENTS

Enrollment:

At public 4-year institutions	50,382
At public 2-year institutions	42,902
At private 4-year institutions	9,914
At private 2-year institutions	2,312
Undergraduate	95,206
First-time freshmen	27,067
Graduate	8,673
Professional	1,631
Total	105,510

Enrollment highlights:

Women	54.6%
Full-time	75.2%
Minority	30.3%
Foreign	1.8%
10-year change in total enrollment	Up 7.2%

Degrees awarded:

Associate	4,332
Bachelor's	9,173
Master's	2,037
Doctorate	272
Professional	461

Residence of new students: State residents make up 87% of all new college students enrolled in Mississippi; 90% of all Mississippi residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	88.3%
Private institutions	11.7%
4-year institutions	58.6%
2-year institutions	41.4%

Proportion of students at largest public institutions who are minority-group members:

University of Southern Mississippi	14.6%
Mississippi State University	11.7%

Proportion of students at largest private institutions who are minority-group members:

Mississippi College	11.8%
William Carey College	20.8%

Test scores: Students averaged 16.2 on the A.C.T., which was taken by 68% of Mississippi's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,603
At public 2-year institutions	$489

At private 4-year institutions	$3,890
At private 2-year institutions	$1,733

Most expensive public institution:
Mississippi State University and University of Mississippi, $1,987

Most expensive private institution:
Millsaps College, $8,250

Expenditures:

Public institutions	$706,380,000
Private institutions	$64,054,000

State funds for higher-education operating expenses: $425,751,000

Two-year change: Up 30%

State spending on student aid:
Need-based: $1,251,000; 2,600 awards
Non-need-based: $990,000; 278 awards
Other: None

Salary of chief executive of largest public 4-year campus:
Aubrey K. Lucas, University of Southern Mississippi, $95,000 (1989-90)

Total spending on research and development by doctorate-granting universities: $57,622,000

Sources:

Federal government	39.0%
State and local governments	28.9%
Industry	7.2%
The institution itself	15.4%
Other	9.4%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$19,260,000
GI Bill	$7,766,000
Pell Grants	$62,093,000

Total federal spending on college-and-university-based research and development: $32,005,000

Selected programs:

Department of Health and Human Services	$8,742,000
National Science Foundation	$1,512,000
Department of Defense	$7,722,000
Department of Agriculture	$8,703,000
Department of Energy	$3,098,000

Largest endowment:
University of Mississippi, $31,481,000

Top fund raisers:

University of Mississippi	$13,356,000
Mississippi State University	$7,391,000
University of Southern Mississippi	$5,708,000

MISCELLANY

★ Students at Mississippi State University, which did not start admitting blacks until 1965, elected the institution's first black student-body president last year.

★ The lead plaintiff in the "Adams case," the landmark desegregation lawsuit that ultimately involved 18 Southern and border states, was Kenneth Adams, a resident of Brandon. He was 16 years old when the suit was filed in 1970. The litigation is still going on.

★ During a speech on the Mississippi College campus, Willard Scott, the weatherman for NBC's "Today" show, donated his $12,000 speaking fee to establish a scholarship for a student "who has displayed some simple act of common sense."

★ The University of Mississippi is the home of the Center for the Study of Southern Culture, a leading institute in the growing field of regional studies.

★ In 1988, Millsaps College was granted the first Phi Beta Kappa chapter in Mississippi.

★ The oldest institution of higher education in the state is Mississippi College, a Southern Baptist institution founded in 1826.

Missouri

MISSOURI politicians take great pride in their state's reputation for low taxes—much to the frustration of higher-education leaders.

College and university officials have been hoping for a tax increase to solve their immediate budget problems. But a growing number of state leaders say that a longer-lasting solution could require a radical restructuring of the state's higher-education system.

The flagship campus of the University of Missouri, located at Columbia, and several smaller regional colleges are far from the state's main population centers. Some say Missouri has more colleges than its population merits, and the cost of operating the many campuses is placing a strain on state resources. That in turn is making it more difficult for Missouri to meet an ever-expanding demand for more college education in the metropolitan areas around St. Louis and Kansas City.

The financial pressures have also forced the state to limit its student-aid financing, squeezing out many students who should qualify for funds.

Although Missouri's desegregation efforts were recently found sufficient by the U.S. Education Department, state officials acknowledge that they need to do more to recruit and keep minority students in college.

Gov. John Ashcroft, a Republican, is known nationally as a champion of assessment, the movement to require colleges to measure how well their students are being served, and Northeast Missouri State University was a pioneer in that field.

The number of students at private colleges is rising, and those institutions, many of which are small and sponsored by religious denominations, now enroll about 30 per cent of the state's college population. As in most Midwestern states, private higher education does not carry the clout of the major public institutions, with the exception of Washington University and Saint Louis University.

Missouri's Coordinating Board for Higher Education is enjoying growing credibility in the General Assembly. The state also has governing boards for the University of Missouri System, for each of the nine four-year institutions outside the system, and for each of 10 community colleges.

DEMOGRAPHICS

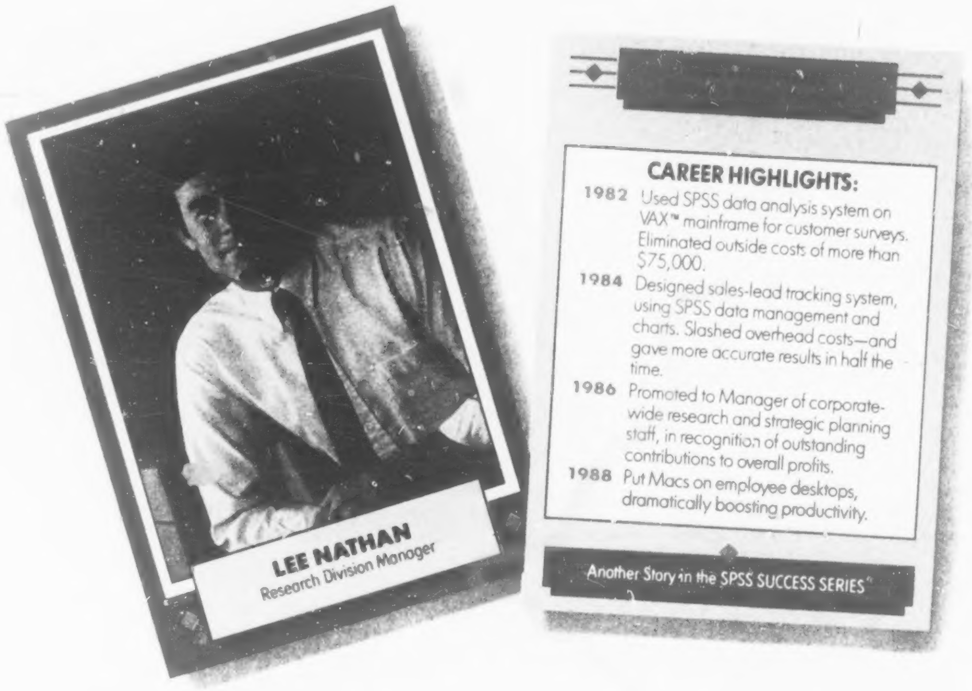
Population: 5,163,000 (Rank: 15)

Age distribution:

Up to 17	25.5%
18 to 24	10.5%

Continued on Following Page

Big-league stats for the serious player.



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Q: What do the following institutions have in common?

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in Paris

Hebrew University
of Jerusalem

University of Crete
in Heraklion

American University
in Cairo

Bosphorus University
in Istanbul

University of Salvador
in Buenos Aires

National Institute for
Amazon Research in Brazil

A: They are just some of the museums, universities and research institutions that are part of the global IST network.

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225 W. 34th Street, Suite 913
New York, NY 10122

Attn: Mark Margolin,
Program Director

or call:

(800) 833-3804
(212) [illegible]83-1202

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Missouri

CONTINUED

25 to 34	17.2%
35 and older	46.8%

Racial and ethnic distribution:

American Indian	0.3%
Asian	0.5%
Black	10.5%
White	88.4%
Other and unknown	0.3%
Hispanic (may be any race)	1.1%

Educational attainment of adults:

At least 4 years of high school	63.5%
At least 1 to 3 years of college	27.2%
At least 4 years of college	13.9%

Per-capita personal income: $15,452

New high-school graduates in:

1989-90 (estimate)	56,209
1999-2000 (estimate)	58,388

High-school dropout rate: 25.6%

POLITICAL LEADERSHIP

Governor: John Ashcroft (R), term ends 1993

Governor's higher-education adviser: Duncan E. Kincheloe, State Capitol, P.O. Box 720, Jefferson City 65102; (314) 751-3222

U.S. Senators: Christopher S. Bond (R), term ends 1993; John C. Danforth (R), term ends 1995

U.S. Representatives:
5 Democrats, 4 Republicans
Jack Buechner (R), William (Bill) Clay (D), E. Thomas Coleman (R), Bill Emerson (R), Richard A. Gephardt (D), Mel Hancock (R), Ike Skelton (D), Harold L. Volkmer (D), Alan Wheat (D)

General Assembly: Senate, 22 Democrats, 12 Republicans; House, 105 Democrats, 58 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	13
Public 2-year institutions	14
Private 4-year institutions	54
Private 2-year institutions	12
Total	93

Vocational institutions: 239

Statewide coordinating board:
Coordinating Board for
Higher Education
101 Adams Street
Jefferson City 65101
(314) 751-2361
Charles J. McClain, commissioner of higher education

Private-college association:
Independent Colleges and
Universities of Missouri
514 Earth City Expressway, Suite 233
Earth City 63045
(314) 739-4770
Charles V. Gallagher, president

Institutions censured by the AAUP:
Concordia Seminary,
Metropolitan Community Colleges

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	5,230
At private institutions	2,480

Proportion with tenure:

At public institutions	66.7%
At private institutions	57.2%

Proportion who are women:

At public institutions	25.9%
At private institutions	31.2%

Average pay of full-time professors:

At public 4-year institutions	$33,260
At public 2-year institutions	$30,748
At private 4-year institutions	$31,737
At private 2-year institutions	$18,034

STUDENTS

Enrollment:

At public 4-year institutions	111,911
At public 2-year institutions	59,335
At private 4-year institutions	77,303
At private 2-year institutions	3,229
Undergraduate	210,717
First-time freshmen	36,375
Graduate	31,646
Professional	9,415
Total	251,778

Enrollment highlights:

Women	53.1%
Full-time	57.7%
Minority	10.4%
Foreign	2.0%
10-year change in total enrollment	Up 13.3%

Degrees awarded:

Associate	6,545
Bachelor's	23,541
Master's	7,670
Doctorate	545
Professional	2,287

Residence of new students: State residents make up 78% of all new college students enrolled in Missouri. 84% of all Missouri residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	67.9%
Private institutions	32.1%
4-year institutions	65.6%
2-year institutions	34.4%

Proportion of students at largest public institutions who are minority-group members:

University of Missouri at Columbia	5.4%
Southwest Missouri State University	2.5%

Proportion of students at largest private institutions who are minority-group members:

Saint Louis University	11.8%
Washington University	11.5%

Test scores: Students averaged 19.1 on the A.C.T., which was taken by 58% of Missouri's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,277
At public 2-year institutions	$524
At private 4-year institutions	$5,474
At private 2-year institutions	$3,788

Most expensive public institution:
University of Missouri at Rolla, $2,002

Most expensive private institution:
Washington University, $13,725

Expenditures:

Public institutions	$999,869,000
Private institutions	$911,951,000

State funds for higher-education operating expenses: $550,609,000

Two-year change: Up 16%

State spending on student aid:
Need-based: $10,331,000; 8,500 awards
Non-need-based: $4,004,000; 2,042 awards
Other: $260,000

Salary of chief executive of largest public 4-year campus:
Haskell M. Monroe, University of Missouri at Columbia: $104,200 (1988-89)

Total spending on research and development by doctorate-granting universities: $207,020,000

Sources:

Federal government	54.8%
State and local governments	5.7%
Industry	9.2%
The institution itself	24.3%
Other	6.0%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$29,684,000
GI Bill	$16,634,000
Pell Grants	$93,112,000

Total federal spending on college-and-university-based research and development: $129,563,000

Selected programs:

Department of Health and Human Services	$98,770,000
National Science Foundation	$9,092,000
Department of Defense	$3,575,000
Department of Agriculture	$8,023,000
Department of Energy	$2,094,000

Largest endowment:

Washington University	$1,141,302,000

Top fund raisers:

Washington University	$50,623,000
University of Missouri	$34,429,000
Saint Louis University	$15,599,000

MISCELLANY

★ When the U.S. Supreme Court upheld Missouri's law to curb abortions, hospitals affiliated with the medical schools at the University of Missouri's Columbia and Kansas City campuses were forced to stop performing most such operations. The Missouri law is expected to become a model for other states.

★ Southeast Missouri State University has acquired what is described as the largest private collection of books and manuscripts by William Faulkner. The donated material, valued at $3.5-million, includes original movie screenplays and letters.

★ Lincoln University, a land-grant institution, has a predominantly black enrollment of resident students and a predominantly white enrollment of commuter students, most of them Jefferson City residents taking evening courses.

★ The National Association of Intercollegiate Athletics, the governing body for about 500 small-college sports programs, has its headquarters in Missouri.

★ Harris-Stowe State College was founded in 1857 as the first teacher-education college west of the Mississippi River.

★ The oldest higher-education institution in Missouri is Saint Louis University, a Roman Catholic institution founded in 1818.

Montana

AFTER the Board of Regents adopted admission standards for the University of Montana, lawmakers retaliated by passing legislation to reduce the terms of board members from seven years to four.

The measure was vetoed by Gov. Stan Stephens, a Republican, but it exemplifies the kind of year higher-education officials had in 1989 as they tried to increase financial support for higher education and improve the quality of education the state provides.

Any moves, such as admissions standards, that run against the state's strong populist philosophy are always controversial and almost always doomed to fail.

Montana is one of the biggest and most sparsely populated states in the nation. Many believe it has too many colleges for the number of residents, particularly since lagging revenues from a stagnant agri-

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cultural and mining economy have forced it to slash higher-education budgets repeatedly.

Thus far, advocates of the current structure have been able to persuade lawmakers that closing institutions would hinder students' access to higher education.

Montana is one of five states with no sales tax, and lawmakers aggressively avoid any appearance of supporting one. Advocates of increased spending on higher education hence have few options to propose.

The Board of Regents of Higher Education is the governing board for all public institutions in the state.

DEMOGRAPHICS

Population: 808,000 (Rank: 44)

Age distribution:

Up to 17	27.5%
18 to 24	10.1%
25 to 34	17.5%
35 and older	45.0%

Racial and ethnic distribution:

American Indian	4.8%
Asian	0.4%
Black	0.2%
White	94.2%
Other and unknown	0.4%
Hispanic (may be any race)	1.3%

Educational attainment of adults:

At least 4 years of high school	74.4%
At least 1 to 3 years of college	36.5%
At least 4 years of college	17.5%

Per-capita personal income: $12,866

New high-school graduates in:

1989-90 (estimate)	9,762
1999-2000 (estimate)	10,013

High-school dropout rate: 13.8%

POLITICAL LEADERSHIP

Governor: Stan Stephens (R), term ends 1993

Governor's higher-education adviser: E. Wayne Phillips, Capitol Station, Helena 59620; (406) 444-3111

U.S. Senators: Max Baucus (D), term ends 1991; Conrad R. Burns (R), term ends 1995

U.S. Representatives:
1 Democrat, 1 Republican
Ron Marlenee (R), Pat Williams (D)

Legislature: Senate, 23 Democrats, 27 Republicans; House, 52 Democrats, 48 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	6
Public 2-year institutions	6
Private 4-year institutions	3
Private 2-year institutions	3
Total	18

Vocational institutions: 48

Statewide coordinating board:
Montana University System
33 South Last Chance Gulch
Helena 59620
(406) 444-6570
Carrol Krause, commissioner of higher education

Private-college association:
None

Institutions censured by the AAUP:
None

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	1,249
At private institutions	146

Proportion with tenure:

At public institutions	63.5%
At private institutions	57.1%

Proportion who are women:

At public institutions	20.1%
At private institutions	29.5%

Average pay of full-time professors:

At public 4-year institutions	$29,648
At public 2-year institutions	$25,679
At private 4-year institutions	$23,782
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	27,234
At public 2-year institutions	4,624
At private 4-year institutions	3,312
At private 2-year institutions	712
Undergraduate	32,340
First-time freshmen	5,365
Graduate	3,325
Professional	217
Total	35,882

Enrollment highlights:

Women	51.2%
Full-time	69.0%
Minority	6.9%
Foreign	1.9%
10-year change in total enrollment	Up 13.4%

Degrees awarded:

Associate	734
Bachelor's	4,140
Master's	765
Doctorate	49
Professional	74

Residence of new students: State residents make up 87% of all new college students enrolled in Montana; 75% of all Montana residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	57.9%
Private institutions	42.1%
4-year institutions	53.9%
2-year institutions	46.1%

Proportion of students at largest public institutions who are minority-group members:

Montana State University	3.0%
University of Montana	3.8%

Proportion of students at largest private institutions who are minority-group members:

Carroll College	1.8%
College of Great Falls	8.3%

Test scores: Students averaged 19.9 on the A.C.T., which was taken by 52% of Montana's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,205
At public 2-year institutions	$423
At private 4-year institutions	$3,867
At private 2-year institutions	$953

Most expensive public institution: Montana State University, $1,526

Continued on Following Page

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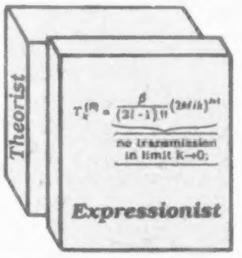
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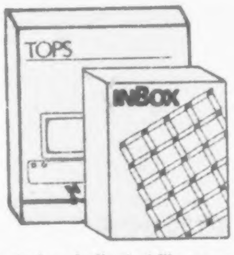

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Montana
CONTINUED

Most expensive private institution: Rocky Mountain College, $5,885

Expenditures:

Public institutions	$182,102,000
Private institutions	$22,349,000

State funds for higher-education operating expenses: $108,277,000

Two-year change: Up 4%

State spending on student aid:
Need-based: $420,000; 1,300 awards
Non-need-based: None
Other: None

Salary of chief executive of largest public 4-year campus:
William J. Tietz, Montana State University, $79,300 (1989-90)

Total spending on research and development by doctorate-granting universities: $29,515,000

Sources	
Federal government	33.6%
State and local governments	29.2%
Industry	10.6%
The institution itself	26.6%
Other	0.0%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$5,855,000
GI Bill	$3,454,000
Pell Grants	$19,020,000

Total federal spending on college-and-university-based research and development: $8,866,000

Selected programs	
Department of Health and Human Services	$1,709,000
National Science Foundation	$2,125,000
Department of Defense	$408,000
Department of Agriculture	$2,593,000
Department of Energy	$129,000

Largest endowment:

Montana State University Foundation	$4,184,000

Top fund raisers:

Carroll College	$1,318,000
Eastern Montana College	$1,097,000
College of Great Falls	$538,000

MISCELLANY

★ U.S. Rep. Pat Williams of Montana is chairman of the House Postsecondary Education Subcommittee. As a result, many hearings on federal policy related to higher education are held in Montana.

★ The University of Montana plans to sell 300 acres of land in Missoula to raise money to establish college scholarships for the state's high-school valedictorians and salutatorians.

★ Montana has seven colleges controlled by American Indian tribal councils.

★ The University of Montana has received a $500,000 grant to study Marco Polo sheep, musk deer, and wild yaks. The donor, a big-game hunter and businessman, created an endowment to support research on the exotic species, the size of their herds, and their suitability for hunting.

★ The oldest institution of higher education in Montana is Rocky Mountain College, an interdenominational institution founded in 1878.

Nebraska

IT WAS a major setback for Nebraska when the U.S. West Corporation rejected the state as the site of its new telecommunications-research complex. As it turns out, however, the rejection was also a powerful catalyst for new moves to help public colleges and universities.

Gov. Kay A. Orr, a Republican, as well as many others in the state, saw the decision as a reproof of the state's higher-education system and its research capabilities.

In response, state leaders in 1988-89 pledged to spend $60-million over five years on new research facilities and programs. They also adopted a three-year plan to increase salaries of faculty members dramatically.

Those steps, coupled with the gradual rebound of the state's agricultural economy, have helped to boost the spirits of many higher-education officials.

But the state still has its problems and controversies. The very lean budget years during most of the 1980's have left many campuses with insufficient funds for programs and personnel.

The much-debated fate of Kearney State College appeared to have been settled by the legislature when it voted in 1989 to move the institution into the state's university system. But questions about the constitutionality of that action still hang over the decision.

Tensions also persist between private colleges and state institutions over the spending of public money on financial aid for private-college students. Public institutions have tried to remove from the Nebraska Coordinating Commission for Postsecondary Education the slot for the private-college representative.

Much of the power over higher education, however, does not rest with that commission. It is held by the institutional governing boards—the University of Nebraska Board of Regents, the Board of Trustees of Nebraska State Colleges, and the local boards that govern technical and community colleges.

Also, under Nebraska's unique one-house legislature, the Unicameral, the chairman of the Appropriations Committee has an unusually powerful say in the nature of spending on higher education.

DEMOGRAPHICS

Population: 1,590,000 (Rank: 37)

Age distribution:

Up to 17	26.4%
18 to 24	10.6%
25 to 34	17.5%
35 and older	45.4%

Racial and ethnic distribution:

American Indian	0.6%
Asian	0.5%
Black	3.1%
White	95.1%
Other and unknown	0.8%
Hispanic (may be any race)	1.8%

Educational attainment of adults:

At least 4 years of high school	73.4%
At least 1 to 3 years of college	32.8%
At least 4 years of college	15.5%

Per-capita personal income: $14,774

New high-school graduates in:

1989-90 (estimate)	19,560
1999-2000 (estimate)	19,822

High-school dropout rate: 13.3%

POLITICAL LEADERSHIP

Governor: Kay A. Orr (R), term ends 1991

Governor's higher-education adviser: Andrew F. Cunningham, P.O. Box 94601, Lincoln 68509; (402) 471-2414

U.S. Senators: J. James Exon (D), term ends 1991; Bob Kerrey (D), term ends 1995

U.S. Representatives:
1 Democrat, 2 Republicans
Doug Bereuter (R), Peter Hoagland (D), Virginia Smith (R)

Unicameral: Nonpartisan legislature

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	7
Public 2-year institutions	13
Private 4-year institutions	13
Private 2-year institutions	2
Total	35

Vocational institutions: 58

Statewide coordinating board:
Nebraska Coordinating Commission
for Postsecondary Education
State Capitol, 6th Floor
P.O. Box 95005
Lincoln 68509
(402) 471-2847
Sue Gordon-Gessner, executive director

Private-college association:
Association of Independent Colleges
and Universities of Nebraska
521 South 14th Street, Suite 302
Lincoln 68508
(402) 474-7485
(presidency vacant)

Institutions censured by the AAUP:
Nebraska State Colleges (governing board)

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	2,756
At private institutions	826

Proportion with tenure:

At public institutions	69.1%
At private institutions	56.2%

Proportion who are women:

At public institutions	25.3%
At private institutions	32.4%

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Average pay of full-time professors:

At public 4-year insitutions	$31,619
At public 2-year institutions	$24,106
At private 4-year institutions	$27,820
At private 2-year institutions	$20,975

STUDENTS

Enrollment:

At public 4-year institutions	55,552
At public 2-year institutions	29,349
At private 4-year institutions	15,474
At private 2-year institutions	453
Undergraduate	87,803
First-time freshmen	16,644
Graduate	10,392
Professional	2,633
Total	100,828

Enrollment highlights:

Women	53.4%
Full-time	56.3%
Minority	5.4%
Foreign	1.9%
10-year change in total enrollment	Up 24.0%

Degrees awarded:

Associate	2,918
Bachelor's	8,410
Master's	1,609
Doctorate	215
Professional	752

Residence of new students: State residents make up 87% of all new college students enrolled in Nebraska; 86% of all Nebraska residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	77.2%
Private institutions	22.8%
4-year institutions	63.0%
2-year institutions	37.0%

Proportion of students at largest public institutions who are minority-group members:

University of Nebraska at Lincoln	3.4%
University of Nebraska at Omaha	6.9%

Proportion of students at largest private institutions who are minority-group members:

Creighton University	9.1%
Bellevue College	14.8%

Test scores: Students averaged 19.8 on the A.C.T., which was taken by 67% of Nebraska's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,292
At public 2-year institutions	$740
At private 4-year institutions	$5,090
At private 2-year institutions	$3,180

Most expensive public institution: University of Nebraska at Lincoln, $1,790

Most expensive private institution: Creighton University, $7,436

Expenditures:

Public institutions	$537,858,000
Private institutions	$161,066,000

State funds for higher-education operating expenses: $253,431,000

Two-year change: Up 18%

State spending on student aid:
Need-based: $1,793,000; 2,500 awards
Non–need-based: None
Other: None

Salary of chief executive of largest public 4-year campus: Martin A. Massengale, University of Nebraska at Lincoln: $114,500 (1989-90)

Total spending on research and development by doctorate-granting universities: $71,730,000

Sources:	
Federal government	45.9%
State and local governments	22.4%
Industry	5.8%
The institution itself	20.9%
Other	5.0%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$5,922,000
GI Bill	$7,776,000
Pell Grants	$34,588,000

Total federal spending on college-and-university-based research and development: $28,563,000

Selected programs:	
Department of Health and Human Services	$11,648,000
National Science Foundation	$4,412,000
Department of Defense	$829,000
Department of Agriculture	$3,796,000
Department of Energy	$493,000

Largest endowment:

University of Nebraska	$127,616,000

Top fund raisers:

University of Nebraska	$28,478,000
Creighton University	$11,467,000
Nebraska Wesleyan University	$2,634,000

MISCELLANY

★ One of the three campuses of Metropolitan Community College in Omaha is at Fort Omaha, an active military base from the 1860's until 1970. The fort is still owned by the federal government and can be reclaimed from the college in case of national emergency.

★ The University of Nebraska at Omaha is the home of the only academic center in the Western Hemisphere devoted exclusively to the study of Afghanistan.

★ As the 1989 fall football season opened, Tom Osborne, the coach at the University of Nebraska at Lincoln, was the winningest active coach in big-time college football. His record for his 16 seasons: 158 wins, 36 losses, and 2 ties.

★ The oldest institution of higher education in Nebraska is Peru State College, founded in 1867.

Sources and notes appear on Page 96

Nevada

NEVADA is one of the fastest-growing states in the nation, and the growth is straining the state's small college and university system.

With two university campuses and four community colleges, Nevada's higher-education officials are struggling to find ways to accommodate increasing numbers of high-school graduates.

Although rapid growth has also put increased pressure on other segments of state government, Gov. Bob Miller, a Democrat, says his highest priority is improving the state's education system.

Nevada's historical reliance on

Continued on Following Page

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Nevada

CONTINUED

gambling and tourism has not encouraged long-term investment in higher education, but Nevada's leaders are trying to diversify the economy. Those efforts have led to state support for improvements in engineering and science programs at the University of Nevada's Reno and Las Vegas campuses.

Some legislators are putting pressure on the universities to develop transfer agreements with the state's community colleges.

For the state to improve its public colleges and universities, most education officials believe it will have to reform its tax structure. Nevada historically has been a strong anti-tax state, but the population surge may change that.

All public higher education in the state is governed by an elected body—the Board of Regents of the University of Nevada System.

DEMOGRAPHICS

Population: 1,049,000 (Rank: 41)

Age distribution:

Up to 17	25.2%
18 to 24	10.2%
25 to 34	20.3%
35 and older	44.3%

Racial and ethnic distribution:

American Indian	1.8%
Asian	1.9%
Black	6.4%
White	87.8%
Other and unknown	2.1%
Hispanic (may be any race)	6.7%

Educational attainment of adults:

At least 4 years of high school	75.5%
At least 1 to 3 years of college	35.1%
At least 4 years of college	14.4%

Per-capita personal income: $17,511

New high-school graduates in:

1989-90 (estimate)	9,784
1999-2000 (estimate)	15,811

High-school dropout rate: 27.9%

POLITICAL LEADERSHIP

Governor: Bob Miller (D), term ends 1991

Governor's higher-education adviser: Cecilia Colling, Capitol Complex, Carson City 89710; (702) 885-5670

U.S. Senators: Richard H. Bryan (D), term ends 1995; Harry Reid (D), term ends 1993

U.S. Representatives:
1 Democrat, 1 Republican
James H. Bilbray (D), Barbara F. Vucanovich (R)

Legislature: Senate, 8 Democrats, 13 Republicans; Assembly, 30 Democrats, 12 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	2
Public 2-year institutions	4
Private 4-year institutions	2
Private 2-year institutions	1
Total	9

Vocational institutions: 72

Statewide coordinating board:
University of Nevada System
2601 Enterprise Road
Reno 89512
(702) 784-4901
Mark H. Dawson, chancellor

Private-college association:
None

Institutions censured by the AAUP:
None

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	878
At private institutions	n/a

Proportion with tenure:

At public institutions	63.3%
At private institutions	n/a

Proportion who are women:

At public institutions	27.0%
At private institutions	n/a

Average pay of full-time professors:

At public 4-year institutions	$37,654
At public 2-year institutions	$31,157
At private 4-year institutions	$21,395
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	23,425
At public 2-year institutions	24,366
At private 4-year institutions	247
At private 2-year institutions	25
Undergraduate	44,058
First-time freshmen	6,655
Graduate	3,820
Professional	185
Total	48,063

Enrollment highlights:

Women	55.9%
Full-time	29.5%
Minority	12.4%
Foreign	1.4%
10-year change in total enrollment	Up 53.0%

Degrees awarded:

Associate	884
Bachelor's	1,929
Master's	419
Doctorate	32
Professional	42

Residence of new students: State residents make up 89% of all new college students enrolled in Nevada; 79% of all Nevada residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	99.8%
Private institutions	0.2%
4-year institutions	41.2%
2-year institutions	58.8%

Proportion of students at largest public institutions who are minority-group members:

University of Nevada at Las Vegas	13.7%
Clark County Community College	18.0%

Proportion of students at largest private institutions who are minority-group members:

Sierra Nevada College	3.2%

Test scores: Students averaged 19.0 on the A.C.T., which was taken by 44% of Nevada's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$988
At public 2-year institutions	$573
At private 4-year institutions	$3,100
At private 2-year institutions	n/a

Most expensive public institutions:
University of Nevada at Las Vegas and at Reno, $1,200

Most expensive private institution:
Sierra Nevada College, $5,250

Expenditures:

Public institutions	$180,107,000
Private institutions	$2,448,000

State funds for higher-education operating expenses: $121,249,000

Two-year change: Up 18%

State spending on student aid:
Need-based: $400,000; 400 awards
Non-need-based: None
Other: None

Salary of chief executive of largest public 4-year campus:
Robert C. Maxson, University of Nevada at Las Vegas: $129,675 (1989-90)

Total spending on research and development by doctorate-granting universities: $28,070,000

Sources:

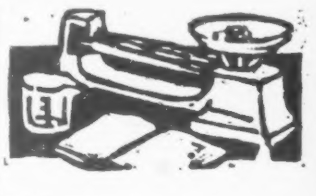
Federal government	48.5%
State and local governments	6.8%
Industry	14.5%
The institution itself	27.9%
Other	2.4%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$5,185,000
GI Bill	$3,916,000
Pell Grants	$11,877,000

Total federal spending on college-and-university-based research and development: $14,955,000

Selected programs:



Department of Health and Human Services	$2,704,000
National Science Foundation	$2,031,000
Department of Defense	$260,000
Department of Agriculture	$1,624,000
Department of Energy	$2,100,000

Largest endowment:

University of Nevada System	$49,857,000

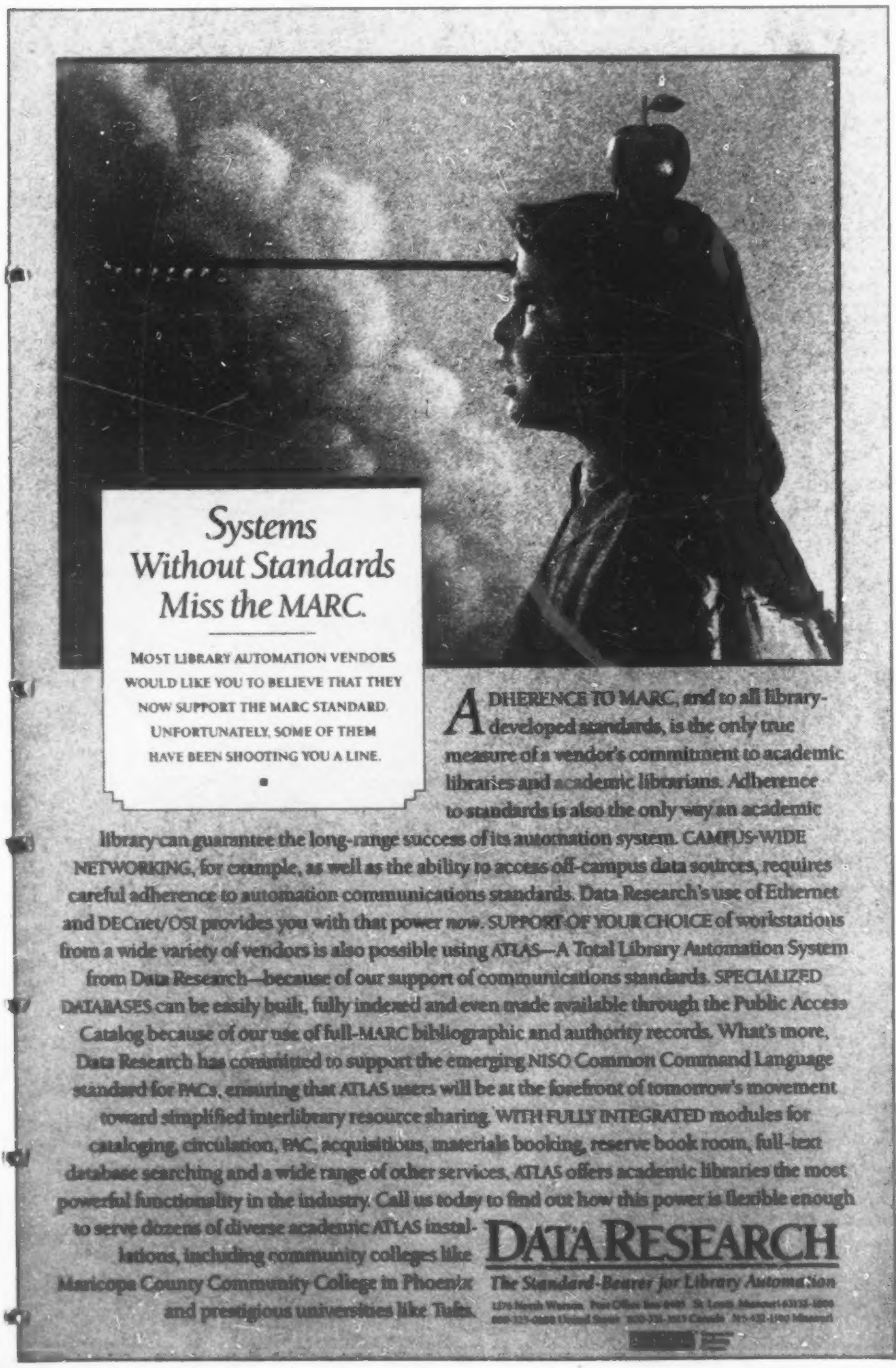
Top fund raiser:

University of Nevada at Reno	$4,193,000

MISCELLANY

★ The only Basque-studies program in the Western Hemisphere is at the University of Nevada at Reno. It is primarily a research institute, with four full-time research faculty members and four to six visiting researchers from around the world at any given time during the academic year. There are 20,000 Basque-related volumes in the library.

★ A legal case involving the controversial basketball coach of the University of Nevada at Las Vegas



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in 1988 led the U.S. Supreme Court to declare that the National Collegiate Athletic Association is not a government entity, and is therefore immune from challenges to its decisions based on the Constitution. The coach, Jerry Tarkanian, claimed that the N.C.A.A. violated his rights to due process by requiring the university to suspend him. The Court ruled that the N.C.A.A. did not have to grant him due process, as a government agency would be required to do.

★ The University of Nevada at Reno was granted a $3.5-million windfall in 1989 in the settlement of a court case that did not involve the university. A state judge ordered the payment to the university as part of the penalties against a California company that had been sued by Reno homeowners because of damage to their property they said the company had caused.

★ The oldest institution of higher education in the state is the University of Nevada at Reno, founded in 1874.

New Hampshire

NEW HAMPSHIRE has long been a haven for conservatives, and their influence is evident at the state's public and private colleges.

Politicians in New Hampshire generally believe that the state should not attempt to duplicate services that could be offered by private groups. In higher education, that has meant a reliance on private colleges to serve many of the college students in the state.

Public higher education consists of two systems: the University of New Hampshire and the vocational-technical system. Each has its own governing board, and the Postsecondary Education Commission serves as the coordinating body.

New Hampshire does not have a sales or income tax—and politicians in the Granite State who propose either are sure to be defeated—so lawmakers in Concord do not have a lot of money to pass around. In the past year, a slump in the state's manufacturing- and agriculture-based economy made legislators even more frugal with public colleges, prompting a series of student protests over cutbacks in campus programs.

For private colleges, the conservative tradition has not been entirely favorable. Dartmouth College, the most prestigious of New Hampshire's institutions, has been the site of bitter battles between conservative students and a more moderate administration.

Led by the *Dartmouth Review*, a conservative newspaper that spawned imitations around the country, the students and their alumni supporters have criticized the university's affirmative-action program, curriculum, and administrative appointments.

DEMOGRAPHICS

Population: 1,116,000 (Rank: 40)

Age distribution:

Up to 17	25.3%
18 to 24	11.3%
25 to 34	18.3%
35 and older	45.0%

Racial and ethnic distribution:

American Indian	0.2%
Asian	0.4%
Black	0.4%
White	98.9%
Other and unknown	0.1%
Hispanic (may be any race)	0.6%

Educational attainment of adults:

At least 4 years of high school	72.3%
At least 1 to 3 years of college	35.1%
At least 4 years of college	18.2%

Per-capita personal income: $19,434

New high-school graduates in:

1989-90 (estimate)	12,414
1999-2000 (estimate)	13,610

High-school dropout rate: 27.3%

POLITICAL LEADERSHIP

Governor: Judd Gregg (R), term ends 1991

Governor's higher-education adviser: position vacant

U.S. Senators: Gordon J. Humphrey (R), term ends 1991; Warren Rudman (R), term ends 1993

U.S. Representatives: 0 Democrats, 2 Republicans
Chuck Douglas (R), Robert C. Smith (R)

General Court: Senate, 8 Democrats, 16 Republicans; House, 119 Democrats, 281 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	4
Public 2-year institutions	8
Private 4-year institutions	17
Private 2-year institutions	4
Total	33

Vocational institutions: 35

Statewide coordinating board:
New Hampshire Postsecondary
Education Commission
2½ Beacon Street
Concord 03301
(603) 271-2555
James A. Busselle, executive director

Private-college association: None

Institutions censured by the AAUP: None

Institutions under NCAA sanctions: None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	1,123
At private institutions	810

Proportion with tenure:

At public institutions	73.1%
At private institutions	49.2%

Proportion who are women:

At public institutions	26.2%
At private institutions	27.8%

Average pay of full-time professors:

At public 4-year institutions	$35,124
At public 2-year institutions	$25,593
At private 4-year institutions	$37,157
At private 2-year institutions	$13,618

Continued on Following Page

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New Hampshire

CONTINUED

STUDENTS

Enrollment:

At public 4-year institutions	22,612
At public 2-year institutions	8,287
At private 4-year institutions	23,058
At private 2-year institutions	2,206
Undergraduate	48,181
First-time freshmen	11,330
Graduate	7,237
Professional	745
Total	[illegible],163

Enrollment highlights:

Women	53.3%
Full-time	62.2%
Minority	3.1%
Foreign	1.3%
10-year change in total enrollment	Up 36.1%

Degrees awarded:

Associate	2,372
Bachelor's	6,770
Master's	1,649
Doctorate	78
Professional	173

Residence of new students: State residents make up 54% of all new college students enrolled in New Hampshire; 57% of all New Hampshire residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	24.3%
Private institutions	75.7%
4-year institutions	92.3%
2-year institutions	7.7%

Proportion of students at largest public institutions who are minority-group members:

University of New Hampshire	1.7%
Plymouth State College	1.3%

Proportion of students at largest private institutions who are minority-group members:

New Hampshire College	6.0%
Dartmouth College	11.1%

Test scores: Students averaged 933 on the S.A.T., which was taken by 71% of New Hampshire's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$2,190
At public 2-year institutions	$1,514
At private 4-year institutions	$8,401
At private 2-year institutions	$2,710

Most expensive public institution:
University of New Hampshire, $3,014

Most expensive private institution:
Dartmouth College, $14,445

Expenditures:

Public institutions	$183,959,000
Private institutions	$264,440,000

State funds for higher-education operating expenses: $72,454,000

Two-year change: Up 29%

State spending on student aid:
Need-based: $836,000; 2,110 awards
Non–need-based: $136,000; 191 awards
Other: None

Salary of chief executive of largest public 4-year campus:
Gordon A. Haaland, University of New Hampshire: $90,800 (1988-89)

Total spending on research and development by doctorate-granting universities: $47,790,000

Sources:

Federal government	72.5%
State and local governments	4.3%
Industry	4.4%
The institution itself	10.4%
Other	8.5%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$6,187,000
GI Bill	$2,863,000
Pell Grants	$5,851,000

Total federal spending on college-and-university-based research and development: $34,653,000

Selected programs:

Department of Health and Human Services	$16,899,000
National Science Foundation	$4,327,000
Department of Defense	$1,852,000
Department of Agriculture	$1,938,000
Department of Energy	$984,000

Largest endowment:

Dartmouth College	$570,616,000

Top fund raisers:

Dartmouth College	$35,423,000
Colby-Sawyer College	$2,002,000
Saint Anselm College	$1,322,000

MISCELLANY

★ Dartmouth College has computerized 600 years' worth of analyses of Dante's *The Divine Comedy*.

★ Keene is home to two companies that specialize in public relations for higher education: Dobisky Associates and Gehrung Associates.

★ Dartmouth College, founded in 1769, is the oldest higher-education institution in New Hampshire.

ECA Installs Registration System at Ball State University

ECA is pleased to announce the successful implementation of a totally *customized* registration system for Ball State University, including comprehensive and integrated **Course Catalog**, **Term Class Schedule**, **Student Scheduling**, **Registration**, **Grade Reporting**, and **Facilities Management** modules.

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The installation was accomplished by tailoring ECA's base systems to BSU's unique, existing requirements, and integrating the new modules with BSU's in-house developed Admissions and Student Records functions. This approach took full advantage of recent and ongoing BSU developmental efforts, resulting in a completely functional and *most cost effective* solution for the University.

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Ball State University is literally a "Campus of the Future", combining AT&T's state-of-the-art fibre optic seamless communications network (*The Chronicle of Higher Education*, Jan. 18, 1989, p. A-15) and ECA's leading edge software technology. ECA's new on-line registration system allows Ball State University to take full advantage of this advanced technology.

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All current and future systems will eventually have to accommodate changes and problems posed by the turn of the century. Data processing personnel today have already realized that most date logic routines will have to be modified before the Class of 2000 registers for Fall Term, 1996. ECA's systems accurately process all dates and date logic through the next century without the requirement for an expensive maintenance agreement.

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New Jersey

REPUBLICAN Gov. Thomas H. Kean has put a giant mark on higher education in New Jersey. Under the moderate Republican's influence, colleges and universities in the Garden State have enjoyed strong financial support and, particularly in the case of younger, emerging public institutions, heightened stature.

Now, as Mr. Kean's eight-year tenure draws to a close and he prepares to assume the presidency of Drew University, speculation centers on whether his successor will have the same devotion, and the same thriving state economy, to sustain the momentum.

One innovation that could suffer if the economy falters is a challenge-grant program that allows colleges to compete for millions of extra dollars for special projects.

The program is open to private colleges, too, reflecting the respect the state has historically shown those institutions. Beginning with the founding of Princeton University in 1746, private colleges and universities have been the dominant higher-education force in New Jersey. Only in the last quarter-century, with the expansion of graduate programs at Rutgers University and the transformation of other state institutions from teachers' colleges to more comprehensive institutions, has that begun to change.

Many of the private institutions are also eligible for state financial assistance. In the flush years of the 1980's, that arrangement tended to encourage cooperation among all sectors of higher education as the Legislature prepared the state budget. But if state resources start to shrink, some speculate that competition may re-emerge. And the budget adopted for 1989-90 is in fact a tight one, making the issue far from theoretical.

In addition to the challenge grants, New Jersey has been a trendsetter in other issues affecting higher education. Its statewide assessment program to measure how well students are being taught has been held up as a model because it was developed with the cooperation of faculty members and relies on a variety of tests and evaluations. The state also has devised a strict code of conduct governing the use of alcoholic beverages on campuses, partly in response to the death of a student at a Rutgers University fraternity party.

New Jersey has large black, Hispanic, and working-class-immigrant populations, so state officials have been paying attention to the problems of attracting and retaining the kind of students who have historically not attended college in high numbers.

New Jersey also has a long political tradition of strong local governments, a factor that led state leaders to eschew a statewide community-college system in favor of one that depends heavily on localities for financing and control.

The Board of Higher Education coordinates postsecondary education. Its staff is the Department of Higher Education, headed by a chancellor who is a member of the Governor's cabinet. There are 31 governing boards for public institutions.

DEMOGRAPHICS

Population: 7,827,000 (Rank: 9)

Age distribution:

Up to 17	23.7%
18 to 24	10.6%
25 to 34	16.6%
35 and olde	49.1%

Racial and ethnic distribution:

American Indian	0.1%
Asian	1.5%
Black	12.6%
White	83.6%
Other and unknown	2.2%
Hispanic (may be any race)	6.7%

Educational attainment of adults:

At least 4 years of high school	67.4%
At least 1 to 3 years of college	31.5%
At least 4 years of college	18.3%

Per-capita personal income: $21,994

New high-school graduates in:

1989-90 (estimate)	84,880
1999-2000 (estimate)	82,315

High-school dropout rate: 22.8%

POLITICAL LEADERSHIP

Governor: Thomas H. Kean (R), term ends 1990

Governor's higher-education adviser: Marla Ucelli, State House, CN-001, Trenton 08625; (609) 292-6000

U.S. Senators: Bill Bradley (D), term ends 1991; Frank R. Lautenberg (D), term ends 1995

U.S. Representatives:
8 Democrats, 6 Republicans
Jim Courter (R), Bernard J. Dwyer (D), James J. Florio (D), Dean A. Gallo (R), Frank J. Guarini (D), William J. Hughes (D), Frank Pallone, Jr. (D), Donald M. Payne (D), Matthew J. Rinaldo (R), Robert A. Roe (D), Marge Roukema (R), Jim Saxton (R), Christopher H. Smith (R), Robert G. Torricelli (D)

Legislature: Senate, 24 Democrats, 16 Republicans; House, 38 Democrats, 41 Republicans, 1 vacancy

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	14
Public 2-year institutions	18
Private 4-year institutions	26
Private 2-year institutions	5
Total	63

Vocational institutions: 259

Statewide coordinating board:
Board of Higher Education
20 West State Street, CN542
Trenton 08625
(609) 292-4310
T. Edward Hollander, chancellor

Private-college association:
Association of Independent Colleges
and Universities in New Jersey
P.O. Box 206
Summit 07901
(201) 277-3738
Francis J. Mertz, president

Institutions censured by the AAUP:
Camden County College, Rider College

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	6,605
At private institutions	2,527

Proportion with tenure:

At public institutions	74.4%
At private institutions	66.0%

Proportion who are women:

At public institutions	31.9%
At private institutions	24.7%

Average pay of full-time professors:

At public 4-year institutions	$42,919
At public 2-year institutions	$34,768
At private 4-year institutions	$40,364
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	131,859
At public 2-year institutions	103,549
At private 4-year institutions	56,471
At private 2-year institutions	2,554
Undergraduate	249,369
First-time freshmen	41,634
Graduate	38,881
Professional	6,183
Total	294,433

Enrollment highlights:

Women	54.5%
Full-time	50.2%
Minority	19.2%
Foreign	3.4%
10-year change in total enrollment	Down 2.2%

Degrees awarded:

Associate	9,534
Bachelor's	23,328
Master's	6,454
Doctorate	670
Professional	1,753

Residence of new students: State residents make up 90% of all new college students enrolled in New Jersey; 64% of all New Jersey residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	84.8%
Private institutions	15.2%
4-year institutions	59.0%
2-year institutions	41.0%

Proportion of students at largest public institutions who are minority-group members:

Rutgers University at New Brunswick	18.2%
Montclair State College	17.2%

Proportion of students at largest private institutions who are minority-group members:

Seton Hall University	12.3%
Princeton University	14.7%

Test scores: Students averaged 893 on the S.A.T., which was taken by 72% of New Jersey's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,861
At public 2-year institutions	$763
At private 4-year institutions	$8,221
At private 2-year institutions	$1,200

Most expensive public institution:
New Jersey Institute of Technology, $3,560

Most expensive private institution:
Princeton University, $14,390

Expenditures:

Public institutions	$1,406,490,000
Private institutions	$714,733,000

State funds for higher-education operating expenses: $1,129,452,000

Two-year change: Up 26%

State spending on student aid:
Need-based: $80,797,000; 56,227 awards
Non-need-based: $5,149,000; 4,843 awards
Other: None

Salary of chief executive of largest public 4-year campus:
Edward J. Bloustein, Rutgers University at New Brunswick: $150,000 (1989-90)

Total spending on research and development by doctorate-granting universities: $215,580,000

Sources:

Federal government	44.6%
State and local governments	17.4%
Industry	5.5%
The institution itself	25.6%
Other	7.0%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$39,988,000
GI Bill	$7,720,000
Pell Grants	$64,168,000

Total federal spending on college-and-university-based research and development: $97,865,000

Selected programs:

Department of Health and Human Services	$43,983,000
National Science Foundation	$24,810,000
Department of Defense	$12,207,000
Department of Agriculture	$3,630,000
Department of Energy	$4,798,000

Largest endowment:

Princeton University	$2,308,073,000

Top fund raisers:

Princeton University	$78,758,000
Rutgers University	$26,007,000
New Jersey Institute of Technology	$6,382,000

MISCELLANY

★ Several community colleges in New Jersey—Camden County College, Middlesex County College, and Union County College, for example—have played key roles in developing the state's well-regarded program to provide basic education and job training to welfare recipients.

★ Rutgers University has opened a residential program designed to house students with substance-abuse problems. The program, on the university's New Brunswick campus, is said to be the first of its kind in the country.

★ Princeton University is the oldest institution of higher education in New Jersey. It was founded in 1746.

New Mexico

CHANGES in New Mexico politics and demographics have presented challenges to colleges and universities in the state, and higher education has a mixed record in responding.

The University of New Mexico has been feeling the political impact of the new Democrat-controlled Legislature more than any other state institution. Since the new Democratic majority elected Hispanic lawmakers to lead the House of Representatives and Senate, the university and its affirmative-action policies have been under scrutiny as never before.

Gov. Garrey E. Carruthers, a Republican and a former professor of agricultural economics, has taken a strong interest in higher education, as well. He has initiated state scholarships for undergraduate minority students and is developing a program designed to increase the number of minority students who pursue graduate degrees.

While university officials say they are trying to attract more minority students and faculty members, lawmakers say universities are not moving fast enough.

On financial issues, by contrast, students believe the university is moving too quickly. A controversial $100-a-year increase in tuition sparked a series of student demonstrations, including a sit-in at the university's administration building.

Whether the state will have enough money to prevent further tuition increases or budget cuts remains to be seen. New Mexico's economy, once heavily dependent on the declining oil and gas industries, continues to diversify, but state officials are not awash in dollars.

Even without much new money, legislators are interested in seeing improvements in the system. Specifically, they want to see the public colleges and universities better define their missions and raise academic standards—while insuring that those standards do not discourage minority students from enrolling.

The Commission on Higher Education, whose members are appointed by the Governor, is the statewide coordinating agency for postsecondary education. There are 11 governing boards for public institutions.

Only three private, non-profit higher-education institutions operate in the state.

One is St. John's College, the second campus of St. John's College in Maryland.

Continued on Following Page

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New Mexico
CONTINUED

DEMOGRAPHICS

Population: 1,595,000 (Rank: 36)

Age distribution:

Up to 17	29.8%
18 to 24	10.9%
25 to 34	17.4%
35 and older	41.9%

Racial and ethnic distribution:

American Indian	8.2%
Asian	0.6%
Black	1.8%
White	76.0%
Other and unknown	13.3%
Hispanic (may be any race)	36.6%

Educational attainment of adults:

At least 4 years of high school	68.9%
At least 1 to 3 years of college	34.7%
At least 4 years of college	17.6%

Per-capita personal income: $12,488

New high-school graduates in:

1989-90 (estimate)	17,162
1999-2000 (estimate)	21,288

High-school dropout rate: 28.3%

POLITICAL LEADERSHIP

Governor: Garrey E. Carruthers (R), term ends 1991

Governor's higher-education adviser: Marlis Mann, State Capitol, Santa Fe 87503; (505) 827-3000

U.S. Senators: Jeff Bingaman (D), term ends 1995; Pete V. Domenici (R), term ends 1991

U.S. Representatives:
1 Democrat, 2 Republicans
Bill Richardson (D), Steven Schiff (R), Joe Skeen (R)

Legislature: Senate, 26 Democrats, 16 Republicans; House, 45 Democrats, 25 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	6
Public 2-year institutions	16
Private 4-year institutions	4
Private 2-year institutions	0
Total	26

Vocational institutions: 42

Statewide coordinating board:
Commission on Higher Education
1068 Cerrillos Road
Santa Fe 87501
(505) 827-8300
Kathleen M. Kies, executive director

Private-college association:
New Mexico Independent College Association
College of Santa Fe
LaSalle Hall, Room B-205
Saint Michael's Drive
Santa Fe 87501
(505) 473-6271
Robert E. Rhodes, executive director

Institutions censured by the AAUP:
None

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	2,200
At private institutions	56

Proportion with tenure:

At public institutions	58.8%
At private institutions	47.7%

Proportion who are women:

At public institutions	23.0%
At private institutions	42.9%

Average pay of full-time professors:

At public 4-year institutions	$33,100
At public 2-year institutions	$24,863
At private 4-year institutions	$26,677
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	47,471
At public 2-year institutions	33,827
At private 4-year institutions	1,776
At private 2-year institutions	0
Undergraduate	71,939
First-time freshmen	9,012
Graduate	10,510
Professional	625
Total	83,074

Enrollment highlights:

Women	53.0%
Full-time	49.2%
Minority	36.1%
Foreign	1.9%
10-year change in total enrollment	Up 50.3%

Degrees awarded:

Associate	1,766
Bachelor's	4,548
Master's	1,732
Doctorate	206
Professional	170

Residence of new students: State residents make up 80% of all new college students enrolled in New Mexico; 79% of all New Mexico residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	97.6%
Private institutions	2.4%
4-year institutions	52.0%
2-year institutions	48.0%

Proportion of students at largest public institutions who are minority-group members:

University of New Mexico main campus	29.6%
New Mexico State University main campus	26.6%

Proportion of students at largest private institutions who are minority-group members:

College of Santa Fe	42.3%
College of the Southwest	20.4%

Test scores: Students averaged 18.0 on the A.C.T., which was taken by 56% of New Mexico's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$915
At public 2-year institutions	$407
At private 4-year institutions	$3,649
At private 2-year institutions	n/a

Most expensive public institution:
New Mexico State University, $1,386

Most expensive private institution:
St. John's College, $11,905

Expenditures:

Public institutions	$456,600,000
Private institutions	$16,500,000

State funds for higher-education operating expenses: $268,800,000

Two-year change: Up 7%

State spending on student aid:
Need-based: $5,309,000; 7,072 awards
Non-need-based: $2,950,000; 1,969 awards
Other: None

Salary of chief executive of largest public 4-year campus:
Gerald W. May, University of New Mexico: $110,000 (1989-90)

Total spending on research and development by doctorate-granting universities: $127,714,000

Sources:

Federal government	59.4%
State and local governments	14.0%
Industry	15.8%
The institution itself	7.6%
Other	3.1%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$13,810,000
GI Bill	$8,488,000
Pell Grants	$26,327,000

Total federal spending on college-and-university-based research and development: $55,138,000

Selected programs:

Department of Health and Human Services	$9,144,000
National Science Foundation	$4,529,000
Department of Defense	$28,924,000
Department of Agriculture	$2,422,000
Department of Energy	$1,842,000

Largest endowment:

University of New Mexico	$37,623,000

Top fund raisers:

University of New Mexico	$10,012,000
New Mexico Military Institute	$1,487,000

MISCELLANY

★ Actress Greer Garson, a seven-time Academy Award nominee and an adjunct professor at the College of Santa Fe, has donated $3-million to the college to build a new communications-arts center.

★ The Los Alamos National Laboratory, one of three national laboratories that the University of California system operates for the Energy Department, grew out of federal nuclear research done in the 1940's, including the Manhattan Project.

★ 1989 is the University of New Mexico's centennial year.

★ The oldest institution of higher education in the state is the New Mexico State University main campus, founded in 1888.

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New York

LIKE New York itself, higher education in the Empire State cannot be stereotyped.

The state is home to urban institutions, like Bronx Community College; to private liberal-arts institutions in bucolic settings, like Colgate University and Wells College; and to large public and private research universities, like the State University of New York at Buffalo and Columbia University.

As New York's liberal student-aid policies and private-college grant programs suggest, the state's many private institutions continue to wield much political clout. These colleges include Fordham, New York, and Syracuse Universities and Vassar College.

But lately, the state's budget difficulties have focused attention on its two giant public systems: the City University of New York and the State University of New York.

Both systems include community colleges, professional schools, and research universities, and many of the individual institutions predate the systems.

The budget crisis proved a formidable test for the systems' traditionally active faculty unions and student groups, whose Albany lobbying and campus sit-ins helped avert the cuts and a threatened tuition increase.

It was also a rude welcome for SUNY's new chancellor, D. Bruce Johnstone, who has been struggling to regain for the university the confidence of Gov. Mario M. Cuomo. A Democrat, Mr. Cuomo has been using his well-known rhetorical skills to criticize SUNY for what he calls wasteful management practices.

Despite SUNY's money problems, its leaders were heartened in 1989 when its upgrading of graduate programs and research capability earned the Buffalo campus admission to the prestigious Association of American Universities. The leaders hope to pursue similar improvements at the Albany, Binghamton, and Stony Brook campuses.

The CUNY system, which also depends on New York City for some of the community colleges' financing, has a long tradition of educating the city's poor and immigrant populations. It also has been particularly aggressive in recent years in developing programs to help the economy of New York and to improve its public schools. Regarded as the quintessential urban university, CUNY has many campuses where racial-minority groups today make up a majority of the student bodies.

Cornell University, the private Ivy League research institution that operates four SUNY units, is the state's land-grant college.

The New York State Board of Regents, whose members are selected by the Legislature, coordinates education at all levels in the state. The CUNY and SUNY systems are governed by their own boards.

In addition to its colleges and universities, New York City is home to many other institutions that have a strong influence on higher education. For example, it is the site of many of the nation's leading hospitals and medical-research centers.

The city is also generally considered to be the country's foundation center. The Ford, Andrew W. Mellon, and Rockefeller Foundations and the Carnegie Corporation of New York are all in the city, and draw grant-seekers from universities around the world.

New York City is also the country's artistic and literary center. Many major publishing houses, journals, theaters, and museums are located there, as is the New York Public Library, with more than 6 million volumes in its research collections.

DEMOGRAPHICS

Population: 17,761,000 (Rank: 2)

Age distribution:

Up to 17	24.3%
18 to 24	10.8%
25 to 34	16.9%
35 and older	48.0%

Racial and ethnic distribution:

American Indian	0.3%
Asian	1.9%
Black	13.7%
White	79.9%
Other and unknown	4.3%
Hispanic (may be any race)	9.5%

Educational attainment of adults:

At least 4 years of high school	66.3%
At least 1 to 3 years of college	32.2%
At least 4 years of college	17.9%

Per-capita personal income: $19,305

New high-school graduates in:

1989-90 (estimate)	173,268
1999-2000 (estimate)	173,615

High-school dropout rate: 37.1%

POLITICAL LEADERSHIP

Governor: Mario M. Cuomo (D), term ends 1991

Governor's higher-education adviser: Daniel Kinley, State Capitol, Room 242, Albany 12224; (518) 474-3321

U.S. Senators: Alfonse M. D'Amato (R), term ends 1993; Daniel Patrick Moynihan (D), term ends 1995

U.S. Representatives:
21 Democrats, 13 Republicans
Gary L. Ackerman (D), Sherwood L. Boehlert (R), Thomas J. Downey (D), Eliot L. Engel (D), Hamilton Fish, Jr. (R), Floyd H. Flake (D), Robert Garcia (D), Benjamin A. Gilman (R), Bill Green (R), George J. Hochbrueckner (D), Frank Horton (R), Amo Houghton (R), John J. LaFalce (D), Norman F. Lent (R), Nita M. Lowey (D), Thomas J. Manton (D), David O'B. Martin (R), Raymond J. McGrath (R), Matthew F. McHugh (D), Michael R. McNulty (D), Guy V. Molinari (R), Robert J. Mrazek (D), Henry J. Nowak (D), Major R. Owens (D), Bill Paxon (R), Charles B. Rangel (D), James H. Scheuer (D), Charles E. Schumer (D), Louise McIntosh Slaughter (D), Stephen J. Solarz (D), Gerald B.H. Solomon (R), Edolphus Towns (D), James T. Walsh (R), Ted Weiss (D)

Legislature: Senate, 27 Democrats, 34 Republicans; Assembly, 92 Democrats, 58 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	49
Public 2-year institutions	48

Continued on Following Page

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New York

CONTINUED

Private 4-year institutions	183
Private 2-year institutions	53
Total	333

Vocational institutions: 461

Statewide coordinating board:
New York State Board of Regents
Cultural Education Center, Room 5B28
Albany 12230
(518) 474-5851
Donald J. Nolan, deputy commissioner for higher and continuing education

Private-college association:
Commission on Independent Colleges and Universities in New York
17 Elk Street
P.O. Box 7289
Albany 12224
(518) 436-4781
C. Mark Lawton, president

Institutions censured by the AAUP:
Onondaga Community College,
State University of New York,
Yeshiva University

Institutions under NCAA sanctions:
Adelphi University, Marist College

FACULTY MEMBERS

Full-time faculty members:

At public institutions	19,558
At private institutions	16,347

Proportion with tenure:

At public institutions	69.7%
At private institutions	57.9%

Proportion who are women:

At public institutions	29.8%
At private institutions	28.6%

Average pay of full-time professors:

At public 4-year institutions	$43,047
At public 2-year institutions	$36,759
At private 4-year institutions	$39,435
At private 2-year institutions	$20,379

STUDENTS

Enrollment:

At public 4-year institutions	342,436
At public 2-year institutions	224,610
At private 4-year institutions	394,534
At private 2-year institutions	30,964
Undergraduate	812,195
First-time freshmen	163,900
Graduate	154,147
Professional	26,202
Total	992,544

Enrollment highlights:

Women	55.2%
Full-time	62.5%
Minority	22.6%
Foreign	3.3%
10-year change in total enrollment	Up 4.4%

Degrees awarded:

Associate	47,956
Bachelor's	86,651
Master's	32,890
Doctorate	3,366
Professional	6,962

Residence of new students: State residents make up 86% of all new college students enrolled in New York; 83% of all New York residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	66.9%
Private institutions	33.1%
4-year institutions	70.6%
2-year institutions	29.4%

Proportion of students at largest public institutions who are minority-group members:

State University of New York at Buffalo	11.5%
Hunter College of the City University of New York	44[illegible]

Proportion of students at largest private institutions who are minority-group members:

New York University	19.0%
Syracuse University	8.7%

Test scores: Students averaged 889 on the S.A.T., which was taken by 72% of New York's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,431
At public 2-year institutions	$1,340
At private 4-year institutions	$7,364
At private 2-year institutions	$4,795

Most expensive public institution:
Cornell University statutory schools, $5,570

Most expensive private institution:
Bard College, $14,735

Expenditures:

Public institutions	$3,802,602,000
Private institutions	$5,594,159,000

State funds for higher-education operating expenses: $3,110,021,000

Two-year change: Up 12%

State spending on student aid:
Need-based: $395,600,000; 314,328 awards
Non-need-based: $28,505,000; 65,355 awards
Other: $385,000

Salary of chief executive of largest public 4-year campus:
Steven B. Sample, State University of New York at Buffalo: $126,000 (1989-90)

Total spending on research and development by doctorate-granting universities: $1,130,142,000

Sources:	
Federal government	68.1%
State and local governments	4.7%
Industry	5.5%
The institution itself	12.1%
Other	9.6%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$67,155,000
GI Bill	$21,268,000
Pell Grants	$393,228,000

Total federal spending on college-and-university-based research and development: $752,825,000

Selected programs:	
Department of Health and Human Services	$490,679,000
National Science Foundation	$112,591,000
Department of Defense	$58,036,000
Department of Agriculture	$9,798,000
Department of Energy	$38,511,000

Largest endowment:
Columbia University $1,374,608,000

Top fund raisers:

Cornell University	$142,028,000
Columbia University	$93,730,000
New York University	$66,090,000

Sources and notes appear on Page 96

MISCELLANY

★ Fifteen female students at Vassar College have started a new club—the Future Housewives of America—to counter what they believe is opposition to traditional values among many women on campus. Along with working to stop violence against wives and children, the group will stage Tupperware parties and run a dating service at the college.

★ Unhappiness about a contractor's use of steel made in South Africa in a new building at Skidmore College led to a unique response: Stairwells in the building are decorated with student-designed murals that convey the horrors of apartheid and the achievements of cultures native to South Africa.

★ All students at Cooper Union, an engineering, architecture, and art institution in Manhattan, receive a full scholarship covering tuition, and room and board. Peter Cooper, the inventor and entrepreneur who founded the institution in 1859, required the full scholarships as a condition of his donating the school's original endowment.

★ The School of New Resources, a division of the College of New Rochelle, is a pioneer in teaching adults. It holds classes on six neighborhood campuses close to where students live, provides academic and financial-aid counseling in the evenings, and has replaced standard lectures with informal seminars that structure learning around the life patterns and experiences of adults.

★ A conscientious objector who spent World War II involved in a human-experimentation program at the University of Rochester donated $1-million to the university for a center for the study of peace.

★ The governors of the two most populous states both received their law degrees from St. John's University. California's Gov. George Deukmejian, a Republican, received his degree in 1952, and New York's Governor Cuomo received his in 1956. Mr. Cuomo also received his undergraduate degree from St. John's.

★ *The Elements of Style*, the classic writing guide by William Strunk, Jr., and E. B. White, is based on a privately printed book with the same title used in a Cornell University English class in 1919. At the time, Strunk was the professor and White was one of his students.

★ With 379,000 students at 64 campuses—including 30 community colleges—the State University of New York System is the nation's largest university system.

★ The oldest higher-education institution in New York is Columbia University, founded in 1754.

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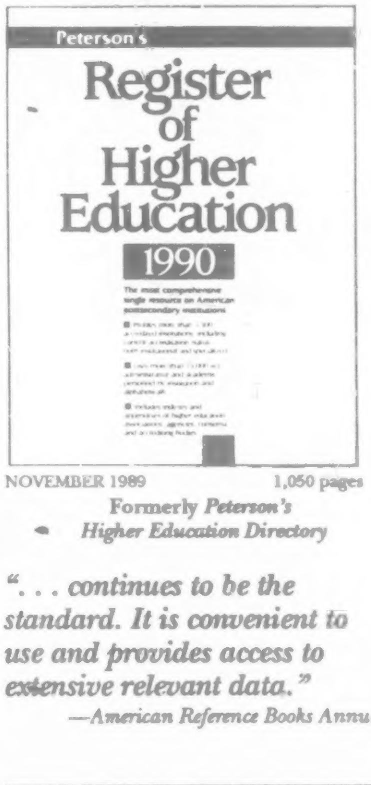
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North Carolina

"THE TRIANGLE," a relatively recent addition to North Carolina's geography, is a symbol of how far higher education has come in the state in the last 20 years.

The triangle is formed by points representing three research universities: Duke, North Carolina State, and the University of North Carolina at Chapel Hill. In the space between those campuses, high-technology businesses have thrived, using—and adding to—the resources of the three campuses. As a result, the economy of North Carolina, once largely based on agriculture and textiles, is now much more diversified and healthy.

That North Carolina model of university-business interaction has become a model that many states wish to emulate.

The success of the effort is the result of decades of work to improve the quality of the universities, which are nationally respected in many fields.

Even though North Carolina in recent years has had only moderate budget growth, the years of providing support for higher education have allowed the colleges to stay strong.

For public higher education, the strength is not limited to the top research universities. The 14-campus system is thriving, with many campuses pushing to expand programs or improve facilities. The U.N.C. campus at Charlotte and East Carolina University in particular are seen as institutions on the move.

One problem facing the state is a result of that growth: concern among Chapel Hill supporters that their campus's flagship status may be eroded by so much expansion elsewhere.

The university system is governed by a single board, with a less-powerful board providing advice for each campus.

North Carolina also has a large community-college system, which has popular job-training and basic-education programs. The system is governed locally, with coordination by a state board.

Duke is the most famous of North Carolina's private institutions, attracting students from across the country and the world. Many other private colleges in the state, most of which are affiliated with religious groups, are also gaining in popularity and prestige. In the last two years, however, Southern Baptist institutions have been engaged in a bitter fight over religious control of faculty appointments and curriculum.

Historically black colleges in North Carolina play an important role in both public and private higher education. The state has five traditionally black public colleges and seven private ones.

Although North Carolina's desegregation plans have expired, racial issues continue to be among the most difficult ones facing college officials. Black enrollments at most institutions do not equal the proportion of blacks in the state's population.

Some North Carolina institutions, however, have ambitious plans to attract minority students and faculty members. Duke, for example, is trying to hire at least one black faculty member for each of its academic departments.

DEMOGRAPHICS

Population: 6,602,000 (Rank: 10)

Age distribution:

Up to 17	25.2%
18 to 24	11.5%
25 to 34	17.8%
35 and older	45.5%

Racial and ethnic distribution:

American Indian	1.1%
Asian	0.4%
Black	22.4%
White	75.8%
Other and unknown	0.2%
Hispanic (may be any race)	1.0%

Educational attainment of adults:

At least 4 years of high school	54.8%
At least 1 to 3 years of college	27.0%
At least 4 years of college	13.2%

Per-capita personal income: $14,304

New high-school graduates in:

1989-90 (estimate)	67,946
1999-2000 (estimate)	64,779

High-school dropout rate: 32.2%

POLITICAL LEADERSHIP

Governor: James G. Martin (R), term ends 1993

Governor's higher-education adviser: Lee E. Monroe, 116 West Jones Street, Raleigh 27603; (919) 733-5811

U.S. Senators: Jesse Helms (R), term ends 1991; Terry Sanford (D), term ends 1993

U.S. Representatives:
8 Democrats, 3 Republicans
Cass Ballenger (R), James McClure Clarke (D), Howard Coble (R), W.G. (Bill) Hefner (D), Walter B. Jones (D), H. Martin Lancaster (D), J. Alex McMillan (R), Stephen L. Neal (D), David E. Price (D), Charles Rose (D), Tim Valentine (D)

General Assembly: Senate, 37 Democrats, 13 Republicans; House, 74 Democrats, 46 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	17
Public 2-year institutions	58
Private 4-year institutions	36
Private 2-year institutions	16
Total	127

Vocational institutions: 73

Statewide coordinating boards:

University of North Carolina
General Administration
P.O. Box 2688
Chapel Hill 27515
(919) 962-6981
C. D. Spangler, president

State Department of Community
Colleges
200 West Jones Street
Raleigh 27603
(919) 733-7051
Robert W. Scott, president

Private-college association:

North Carolina Association of
Independent Colleges
and Universities
879A Washington Street
Raleigh 27605
(919) 832-5817
John T. Henley, president

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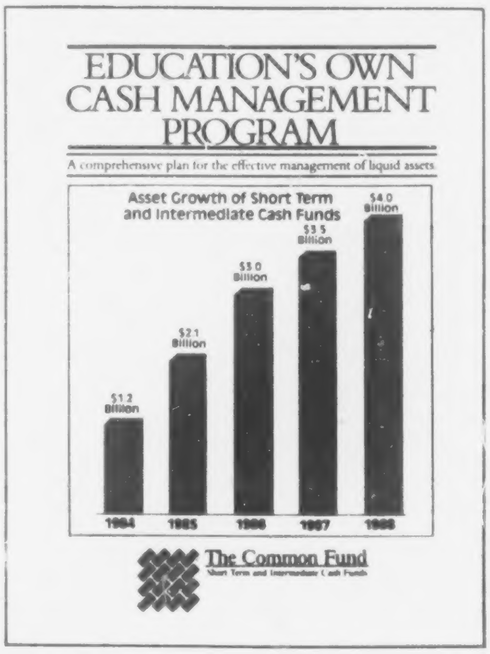

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North Carolina
CONTINUED

Institutions censured by the AAUP: Southeastern Baptist Theological Seminary, Wingate College

Institutions under NCAA sanctions: None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	9,575
At private institutions	2,292

Proportion with tenure:

At public institutions	58.3%
At private institutions	51.4%

Proportion who are women:

At public institutions	33.1%
At private institutions	33.3%

Average pay of full-time professors:

At public 4-year institutions	$36,514
At public 2-year institutions	$22,802
At private 4-year institutions	$27,554
At private 2-year institutions	$22,512

STUDENTS

Enrollment:

At public 4-year institutions	135,340
At public 2-year institutions	123,590
At private 4-year institutions	55,535
At private 2-year institutions	6,786
Undergraduate	287,980
First time freshmen	62,157
Graduate	27,183
Professional	6,088
Total	321,251

Enrollment highlights:

Women	55.6%
Full-time	62.6%
Minority	20.5%
Foreign	1.5%
10-year change in total enrollment	Up 24.9%

Degrees awarded:

Associate	10,659
Bachelor's	24,919
Master's	5,678
Doctorate	788
Professional	1,620

Residence of new students: State residents make up 81% of all new college students enrolled in North Carolina; 93% of all North Carolina residents who attend college do so in their home state

Proportion of all minority students who enroll at:

Public institution	83.0%
Private institutions	17.0%
4-year institutions	57.8%
2-year institutions	42.2%

Proportion of students at largest public institutions who are minority-group members:

North Carolina State University	12.5%
University of North Carolina at Chapel Hill	10.6%

Proportion of students at largest private institutions who are minority-group members:

Duke University	8.3%
Wake Forest University	4.8%

Test scores: Students averaged 841 on the S.A.T., which was taken by 61% of North Carolina's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$818
At public 2-year institutions	$216
At private 4-year institutions	$5,597
At private 2-year institutions	$3,635

Most expensive public institution: North Carolina School of the Arts, $1,528

Most expensive private institution: Duke University, $13,928

Expenditures:

Public institutions	$1,799,173,000
Private institutions	$837,291,000

State funds for higher-education operating expenses: $1,329,606,000

Two-year change: Up 13%

State spending on student aid:

Need-based: $5,989,000; 7,849 awards

Non-need-based: $23,297,000; 24,330 awards

Other: $22,837,000

Salary of chief executive of largest public 4-year campus: Bruce R. Poulton, North Carolina State University: $110,500 (1988-89)

Total spending on research and development by doctorate-granting universities: $313,819,000

Sources:

Federal government	62.2%
State and local governments	17.5%
Industry	7.6%
The institution itself	8.2%
Other	4.5%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$41,672,000
GI Bill	$25,864,000
Pell Grants	$67,295,000

Total federal spending on college-and-university-based research and development: $228,176,000

Selected programs:

Department of Health and Human Services	$164,059,000
National Science Foundation	$16,745,000
Department of Defense	$14,109,000
Department of Agriculture	$11,225,000
Department of Energy	$5,206,000

Largest endowment:

Duke University	$392,893,000

Top fund raisers:

Duke University	$85,903,000
University of North Carolina at Chapel Hill	$39,610,000
Wake Forest University	$24,071,000

MISCELLANY

★ Warren Wilson College has a 15-hours-a-week work requirement for all on-campus students, and a dean of work to administer the program.

★ Pembroke State University was founded to teach American Indians, and its student body is still about one-third Indian.

★ Students at Duke University have formed "Devils Who Don't," named after Duke's mascot, the Blue Devil. Members of Devils Who Don't encourage students to wait until they are married to have sex.

★ Many politicians in North Carolina have strong higher-education ties. Gov. James G. Martin is a former chemistry professor at Davidson College. U.S. Sen. Terry Sanford is former president of Duke University. Robert W. Scott, a former Governor, is now president of the State Department of Community Colleges. U.S. Rep. David E. Price is a former political science professor at Duke University.

★ The University of North Carolina and the University of Georgia both claim to be the oldest public university in the country.

★ Julian Abele, the architect who designed much of Duke University's campus, in April became the first black person to be honored with a portrait in Duke's administration building.

★ Davidson College is launching a $150-million capital campaign, the largest ever attempted by a liberal-arts college.

★ Teachers graduating from Fayetteville State University's education school receive a warranty along with their bachelor's degrees. If a graduate is found deficient by his or her employer, the university will either send in experts to refine the graduate's skills or allow the graduate to attend more university classes, both without charge.

★ The oldest institution of higher education in North Carolina is Salem College, a Moravian institution founded in 1772.

Sources and notes appear on Page 96

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North Dakota

NORTH DAKOTA'S egalitarian and populist traditions have produced a higher-education system that may be more extensive than the sparsely populated state needs, or can afford.

But the 11 widely scattered state colleges and universities have become vital parts of their home communities' economies, and it is unlikely that political leaders would risk the outrage involved in closing a campus.

An all-out public-relations campaign proclaiming a "Crisis in Higher Education" won the system a reprieve in 1989. The Legislative Assembly approved a tax increase for colleges to help stem the flight of faculty members.

Gov. George A. Sinner, a Democrat who was once president of the Board of Higher Education, is favorably disposed toward giving higher education more money. But even he cannot overcome the impact of the state's weak economy, which has been battered in recent years by declines in the agriculture and energy industries.

State leaders acknowledge that any real solution will require a form of "downsizing." The process would probably involve cutbacks in enrollments by instituting tougher admissions standards at the two research universities, the University of North Dakota and North Dakota State University, and the elimination of many duplicative programs at the various campuses.

All public colleges are governed by the Board of Higher Education, established under the state Constitution.

DEMOGRAPHICS

Population: 664,000 (Rank: 46)

Age distribution:

Up to 17	27.4%
18 to 24	10.9%
25 to 34	18.4%
35 and older	43.3%

Racial and ethnic distribution:

American Indian	3.1%
Asian	0.4%
Black	0.4%
White	96.0%
Other and unknown	0.2%
Hispanic (may be any race)	0.6%

Educational attainment of adults:

At least 4 years of high school	66.4%
At least 1 to 3 years of college	35.1%
At least 4 years of college	14.8%

Per-capita personal income: $12,833

New high-school graduates in:

1989-90 (estimate)	8,012
1999-2000 (estimate)	8,749

High-school dropout rate: 11.6%

POLITICAL LEADERSHIP

Governor: George A. Sinner (D), term ends 1992

Governor's higher-education adviser: Carol M. Siegert, State Capitol, Bismarck 58505; (701) 224-2200

U.S. Senators: Quentin N. Burdick (D), term ends 1995; Kent Conrad (D), term ends 1993

U.S. Representative:
1 Democrat
Byron L. Dorgan (D)

Legislative Assembly: Senate, 32 Democrats, 21 Republicans; House, 45 Democrats, 61 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	6
Public 2-year institutions	8
Private 4-year institutions	3
Private 2-year institutions	1
Total	18

Vocational institutions: 28

Statewide coordinating board:
Board of Higher Education
State Capitol Building
Bismarck 58505
(701) 224-2960
John A. Richardson, commissioner

Private-college association:
North Dakota Independent College Fund
University of Mary
7500 University Drive
Bismarck 58504
(701) 255-7500
Ernest B. Borr, executive director

Institutions censured by the AAUP: None

Institutions under NCAA sanctions: None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	1,400
At private institutions	89

Proportion with tenure:

At public institutions	58.7%
At private institutions	n/a

Proportion who are women:

At public institutions	23.2%
At private institutions	41.6%

Average pay of full-time professors:

At public 4-year institutions	$29,959
At public 2-year institutions	$26,699
At private 4-year institutions	$20,409
At private 2-year institutions	$19,547

STUDENTS

Enrollment:

At public 4-year institutions	27,358
At public 2-year institutions	6,990
At private 4-year institutions	2,466
At private 2-year institutions	238
Undergraduate	33,670
First-time freshmen	8,249
Graduate	2,975
Professional	407
Total	37,052

Enrollment highlights:

Women	48.0%
Full-time	78.7%
Minority	5.5%
Foreign	2.5%
10-year change in total enrollment	Up 15.1%

Degrees awarded:

Associate	1,980
Bachelor's	4,209
Master's	587
Doctorate	76
Professional	117

Residence of new students: State residents make up 76% of all new college students enrolled in North Dakota; 81% of all North Dakota residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	87.6%
Private institutions	12.4%

Continued on Following Page

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North Dakota

CONTINUED

4-year institutions	48.4%
2-year institutions	51.6%

Proportion of students at largest public institutions who are minority-group members:

University of North Dakota	4.3%
North Dakota State University	1.5%

Proportion of students at largest private institutions who are minority-group members:

University of Mary	7.8%
Jamestown College	3.9%

Test scores: Students averaged 18.7 on the A.C.T., which was taken by 73% of North Dakota's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,198
At public 2-year institutions	$1,074
At private 4-year institutions	$4,162
At private 2-year institutions	n/a

Most expensive public institution:
University of North Dakota main campus, $1,724

Most expensive private institution:
Jamestown College, $6,170

Expenditures:

Public institutions	$288,214,000
Private institutions	$18,853,000

State funds for higher-education operating expenses: $118,072,000

Two-year change: Down 2%

State spending on student aid:
Need-based: $1,007,000; 2,013 awards
Non–need-based: $111,000; awards n/a
Other: None

Salary of chief executive of largest public 4-year campus:
Thomas J. Clifford, University of North Dakota: $92,880 (1989-90)

Total spending on research and development by doctorate-granting universities: $38,984,000

Sources:

Federal government	44.9%
State and local governments	39.4%
Industry	5.5%
The institution itself	9.5%
Other	0.7%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$6,149,000
GI Bill	$3,741,000
Pell Grants	$20,822,000

Total federal spending on college-and-university-based research and development: $8,194,000

Selected programs:

Department of Health and Human Services	$1,238,000
National Science Foundation	$513,000
Department of Defense	$400,000
Department of Agriculture	$3,354,000
Department of Energy	$135,000

Largest endowment:

University of North Dakota Foundation	$12,938,000

Top fund raisers:

University of North Dakota	$4,983,000
Jamestown College	$1,209,000
University of Mary	$736,000

MISCELLANY

★ Four of North Dakota's two-year colleges are controlled by Indian tribes—Fort Berthold Community College, Little Hoop Community College, Standing Rock College, and Turtle Mountain Community College.

★ A University of North Dakota faculty member last year sponsored a limerick-writing contest to draw attention to the way the state's financial problems have hurt the university system. Among the entries:

With current state resource
deployment,
Young scholars find little
enjoyment.
The Governor whimpers,
And postures, and simpers,
While the faculty seeks new
employment.

★ Some 310 faculty and staff members at Minot State University in 1988 contributed almost $700,000 to the university's $3-million endowment drive, the largest in its history. In expressing thanks for the support, the university's development officer noted, "These people haven't had a raise in four years. They're hardy up here in North Dakota."

★ The oldest institution of higher education in North Dakota is the University of North Dakota in Grand Forks, founded in 1883.

Ohio

SPARKS flew in 1989 when Gov. Richard F. Celeste and education leaders butted heads over his education plan, and the battle captured the attention of news organizations across the state.

Governor Celeste, a Democrat, insisted that the best way to guarantee education a stable source of additional revenue was to increase the state income tax. But education officials did not like the provision in his legislation that would have created a new board to monitor the use of the new money.

After the commotion died down, a compromise plan emerged from the General Assembly, which established a $90-million fund to improve education.

The uproar was prompted by an extremely tight budget that threatened to lead to cuts in appropriations to higher education. Until the recent problems, however, the public colleges had received substantial increases in state funds under Governor Celeste.

More significantly, many observers say, the state has started to view higher education as a partner in its economic strategy to move from an industrial to a service-based economy. Ohio's program to support joint university-business research, named for Thomas Alva Edison, is one of the most highly regarded in the nation.

The governance of higher education in Ohio is highly decentralized. The Board of Regents serves as the statewide coordinating board, and each institution has its own board, with some operating branch campuses as well.

Ohio is known for its many huge campuses. The Ohio State University enrolls more than 50,000 students annually, and the University of Cincinnati more than 30,000.

The state is also home to many small, private liberal-arts colleges, like the College of Wooster, Denison University, Kenyon College, and Oberlin College, which has one of the most prestigious music schools in the country.

Even for a state with so many different types of institution, Ohio has a relatively low college-going rate among its high-school graduates, and state officials are planning several campaigns to encourage youngsters to go to college. Those campaigns are expected to pay special attention to the state's minority students.

Ohio also has many proprietary schools. Interest in those schools has grown in the last year, following scandals about the management and academic quality of some of them.

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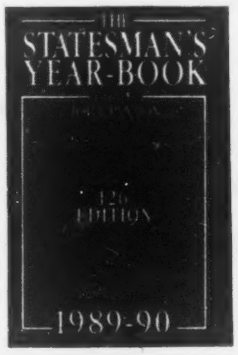

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DEMOGRAPHICS

Population: 10,787,000 (Rank: 7)

Age distribution:

Up to 17	26.0%
18 to 24	10.7%
25 to 34	17.3%
35 and older	46.0%

Racial and ethnic distribution:

American Indian	0.1%
Asian	0.5%
Black	10.0%
White	89.0%
Other and unknown	0.4%
Hispanic (may be any race)	1.1%

Educational attainment of adults:

At least 4 years of high school	67.0%
At least 1 to 3 years of college	26.5%
At least 4 years of college	13.7%

Per-capita personal income: $15,536

New high-school graduates in:

1989-90 (estimate)	132,681
1999-2000 (estimate)	126,249

High-school dropout rate: 17.2%

POLITICAL LEADERSHIP

Governor: Richard F. Celeste (D), term ends 1991

Governor's higher-education adviser: Carla Edlefson, 77 South High Street, 30th Floor, Columbus 43215; (614) 466-1444

U.S. Senators: John Glenn (D), term ends 1993; Howard M. Metzenbaum (D), term ends 1995

U.S. Representatives:
11 Democrats, 10 Republicans
Douglas Applegate (D), Michael DeWine (R), Dennis E. Eckart (D), Edward F. Feighan (D), Paul E. Gillmor (R), Willis D. Gradison, Jr. (R), Tony P. Hall (D), Marcy Kaptur (D), John R. Kasich (R), Thomas A. Luken (D), Donald E. (Buz) Lukens (R), Bob McEwen (R), Clarence E. Miller (R), Mary Rose Oakar (D), Michael G. Oxley (R), Donald J. Pease (D), Ralph Regula (R), Thomas C. Sawyer (D), Louis Stokes (D), James A. Traficant, Jr. (D), Chalmers P. Wylie (R)

General Assembly: Senate, 14 Democrats, 19 Republicans; House, 59 Democrats, 40 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	22
Public 2-year institutions	39
Private 4-year institutions	65
Private 2-year institutions	29
Total	155

Vocational institutions: 345

Statewide coordinating board:
Board of Regents
State Office Tower, 36th Floor
30 East Broad Street
Columbus 43266
(614) 466-6000
William B. Coulter, chancellor

Private-college association:
Association of Independent Colleges
and Universities of Ohio
17 South High Street, Suite 1020
Columbus 43215
(614) 228-2196
Larry H. Christman, president

Institutions censured by the AAUP:
None

Institutions under NCAA sanctions:
Cleveland State University,
University of Cincinnati

FACULTY MEMBERS

Full-time faculty members:

At public institutions	11,010
At private institutions	4,589

Proportion with tenure:

At public institutions	70.6%
At private institutions	59.4%

Proportion who are women:

At public institutions	26.4%
At private institutions	26.9%

Average pay of full-time professors:

At public 4-year institutions	$40,235
At public 2-year institutions	$30,052
At private 4-year institutions	$31,299
At private 2-year institutions	$19,676

STUDENTS

Enrollment:

At public 4-year institutions	270,167
At public 2-year institutions	121,664
At private 4-year institutions	103,198
At private 2-year institutions	23,435
Undergraduate	449,360
First-time freshmen	98,903
Graduate	57,026
Professional	12,078
Total	518,464

Enrollment highlights:

Women	51.8%
Full-time	60.8%
Minority	9.6%
Foreign	2.4%
10-year change in total enrollment	Up 14.5%

Degrees awarded:

Associate	17,850
Bachelor's	43,983
Master's	12,185
Doctorate	1,612
Professional	3,341

Residence of new students: State residents make up 87% of all new college students enrolled in Ohio; 86% of all Ohio residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	74.2%
Private institutions	25.8%
4-year institutions	66.5%
2-year institutions	33.5%

Proportion of students at largest public institutions who are minority-group members:

Ohio State University main campus	8.0%
University of Cincinnati	14.1%

Proportion of students at largest private institutions who are minority-group members:

University of Dayton	5.9%
Case Western Reserve University	10.3%

Test scores: Students averaged 19.3 on the A.C.T., which was taken by 52% of Ohio's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,982
At public 2-year institutions	$1,181
At private 4-year institutions	$6,176
At private 2-year institutions	$3,380

Most expensive public institution:
Miami University at Oxford, $3,400

Most expensive private institution:
Oberlin College, $14,220

Expenditures:

Public institutions	$2,718,408,000
Private institutions	$980,801,000

State funds for higher-education operating expenses: $1,320,460,000

Two-year change: Up 9%

State spending on student aid:
Need-based: $51,400,000; 68,000 awards
Non-need-based: $21,462,000; 38,464 awards
Other: None

Salary of chief executive of largest public 4-year campus:
Edward H. Jennings, Ohio State University main campus: $146,286 (1989-90)

Total spending on research and development by doctorate-granting universities: $328,772,000

Sources:

Federal government	58.7%
State and local governments	10.6%
Industry	6.8%
The institution itself	14.3%
Other	9.6%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$64,134,000
GI Bill	$26,597,000
Pell Grants	$188,488,000

Total federal spending on college-and-university-based research and development: $197,721,000

Selected programs:

Department of Health and Human Services	$104,894,000
National Science Foundation	$18,152,000
Department of Defense	$35,936,000
Department of Agriculture	$7,755,000
Department of Energy	$4,316,000

Largest endowment:

Case Western Reserve University	$331,183,000

Top fund raisers:

Ohio State University	$63,907,000
Case Western Reserve University	$34,062,000
University of Cincinnati	$25,963,000

MISCELLANY

★ Ohio Wesleyan University has opened an "intergenerational residence hall," where students live in rooms alongside older residents of the community, who rent their apartments from the institution.

★ In 1863 Daniel Alexander Payne, a bishop in the African Methodist Episcopal Church, was named president of Wilberforce University, making him the world's first black university president.

★ The College of Wooster has a $307,000 endowment for the maintenance and conservation of the 1,500 trees on its campus.

★ Xavier University will provide five full-cost scholarships this year to freshmen who are committed to providing service to others. The scholarships are intended to underscore the Jesuit institution's commitment to service, peace, and justice. Recipients are expected to perform about 15 hours of community-service work weekly.

★ The oldest higher-education institution in the state is Ohio University, founded in 1804.

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Oklahoma

HIGHER education in Oklahoma is trying, with mixed success, to break free from some traditions that have hampered its development.

Those traditions include a win-at-all-costs commitment to college athletics, a populist philosophy that leads many politicians to oppose admissions standards, and a highly politicized college system that many officials say has led to a series of financial scandals.

All of those traditions are under fire, but they remain strong. How much they will continue to influence the direction of higher education is anyone's guess.

In athletics, the scandals in 1988-89 surrounding the University of Oklahoma football team shocked even hard-core fans. The football coach, Barry Switzer, resigned. But reformers could not claim a complete victory, since Mr. Switzer in effect named his successor.

On questions of college standards and political involvement in academic decisions, the State Regents for Higher Education had many successes in the last academic year. Led by a new chancellor, Hans Brisch, the regents adopted new policies to prevent corruption and raise academic standards. The policies were challenged by angry lawmakers, but generally emerged intact.

In a sign of changing times in the state, the Legislature even rewarded the regents by providing generous budget increases for higher education—no easy task in a state that is still recovering from the decline in the oil and agriculture industries.

Oklahoma officials were pleased when the Education Department declared in 1989 that the state was in compliance with federal anti-bias laws—a decision that ended years of federal monitoring of the state's desegregation efforts.

Racial issues continue to be troublesome, however. Black legislators have consistently complained about poor recruitment efforts for black students and inadequate state support for Langston University, a public black institution.

In terms of governance, the state regents, who coordinate higher education, are gaining in power. But the governance system is still decentralized. Much power lies with the governing boards of the 17 colleges and universities.

Private higher education in Oklahoma is dominated by religious institutions, the most famous of which is Oral Roberts University.

DEMOGRAPHICS

Population: 3,285,000 (Rank: 27)

Age distribution:

Up to 17	27.2%
18 to 24	10.6%
25 to 34	17.5%
35 and older	44.6%

Racial and ethnic distribution:

American Indian	5.7%
Asian	0.7%
Black	6.8%
White	86.0%
Other and unknown	0.9%
Hispanic (may be any race)	1.9%

Educational attainment of adults:

At least 4 years of high school	66.0%
At least 1 to 3 years of college	31.2%
At least 4 years of college	15.1%

Per-capita personal income: $13,323

New high-school graduates in:

1989-90 (estimate)	35,676
1999-2000 (estimate)	45,235

High-school dropout rate: 27.4%

POLITICAL LEADERSHIP

Governor: Henry Bellmon (R), term ends 1991

Governor's higher-education adviser: Sandy Garrett, State Capitol, Oklahoma City 73105; (405) 521-2342

U.S. Senators: David L. Boren (D), term ends 1991; Don Nickles (R), term ends 1993

U.S. Representatives:
4 Democrats, 2 Republicans
Mickey Edwards (R), Glenn English (D), James M. Inhofe (R), Dave McCurdy (D), Mike Synar (D), Wes Watkins (D)

Legislature: Senate, 33 Democrats, 15 Republicans; House, 69 Democrats, 32 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	14
Public 2-year institutions	14
Private 4-year institutions	13
Private 2-year institutions	5
Total	46

Vocational institutions: 89

Statewide coordinating board:
State Regents for Higher Education
500 Education Building
State Capitol Complex
Oklahoma City 73105
(405) 521-2444
Hans Brisch, chancellor

Private-college association:
Oklahoma Association of Independent Colleges and Universities
114 East Sheridan, Suite 101
Oklahoma City 73104
(405) 235-0587
James A. Reid, president

Institutions censured by the AAUP:
Central State University,
Southern Nazarene University

Institutions under NCAA sanctions:
Oklahoma State University,
University of Oklahoma

FACULTY MEMBERS

Full-time faculty members:

At public institutions	4,373
At private institutions	930

Proportion with tenure:

At public institutions	59.4%
At private institutions	46.4%

Proportion who are women:

At public institutions	29.1%
At private institutions	28.8%

Average pay of full-time professors:

At public 4-year institutions	$31,763
At public 2-year institutions	$27,143
At private 4-year institutions	$30,398
At private 2-year institutions	$20,449

STUDENTS

Enrollment:

At public 4-year institutions	93,619
At public 2-year institutions	55,287
At private 4-year institutions	18,464
At private 2-year institutions	5,360
Undergraduate	148,293
First-time freshmen	31,424
Graduate	20,765
Professional	3,672
Total	172,730

Enrollment highlights:

Women	52.5%
Full-time	57.2%
Minority	14.1%
Foreign	3.9%
10-year change in total enrollment	Up 15.5%

Degrees awarded:

Associate	5,338
Bachelor's	13,545
Master's	3,935
Doctorate	342
Professional	999

Residence of new students: State residents make up 92% of all new college students enrolled in Oklahoma; 87% of all Oklahoma residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	88.7%
Private institutions	11.3%
4-year institutions	62.2%
2-year institutions	37.8%

Proportion of students at largest public institutions who are minority-group members:

University of Oklahoma	10.4%
Oklahoma State University	6.8%

Proportion of students at largest private institutions who are minority-group members:

Oral Roberts University	12.9%
University of Tulsa	6.8%

Test scores: Students averaged 18.0 on the A.C.T., which was taken by 56% of Oklahoma's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$757
At public 2-year institutions	$456
At private 4-year institutions	$3,662
At private 2-year institutions	$2,262

Most expensive public institution:
University of Oklahoma at Norman, $1,507

Most expensive private institution:
National Education Center–Spartan School of Aeronautics, $7,680

Expenditures:

Public institutions	$844,829,000
Private institutions	$178,905,000

State funds for higher-education operating expenses: $415,191,000

Two-year change: Up 8%

State spending on student aid:
Need-based: $11,422,000; 15,525 awards
Non–need-based: $428,000; 200 awards
Other: $6,639,000

Salary of chief executive of largest public 4-year campus:
Richard L. Van Horn, University of Oklahoma at Norman: $140,000 (1989-90)

Total spending on research and development by doctorate-granting universities: $99,116,000

Sources:

Federal government	26.1%
State and local governments	3.4%
Industry	6.8%
The institution itself	58.1%
Other	5.5%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$21,311,000
GI Bill	$16,766,000
Pell Grants	$68,125,000

Total federal spending on college-and-university-based research and development: $32,570,000

Selected programs:

Department of Health and Human Services	$9,199,000
National Science Foundation	$4,493,000
Department of Defense	$4,496,000
Department of Agriculture	$4,913,000
Department of Energy	$4,508,000

Largest endowment:

University of Tulsa	$242,076,000

Top fund raisers:

University of Oklahoma	$15,929,000
Oklahoma State University	$11,444,000
University of Tulsa	$7,434,000

MISCELLANY

★ The historically black Langston University and the city in which it is located are both named for John Mercer Langston, a 19th-century black leader who served as vice-president of Howard University, as president of Virginia State College for Negroes (now Virginia State University), and as President Rutherford B. Hayes's resident minister in Haiti.

★ Honors students at Oklahoma State University will have their own lounge in the university's library this academic year. The university spent about $25,000 to convert two library rooms into the lounge and to outfit one of the rooms with eight personal computers.

★ In 1988, the University of Tulsa was granted the second chapter of Phi Beta Kappa in Oklahoma. The first was at the University of Oklahoma.

★ The oldest institution of higher education in Oklahoma is Bacone College, founded in 1880.

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> Thurston E. Manning, *President*, Council on Postsecondary Accreditation
> Washington, DC, August, 1989

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hep
Higher Education Directory

Oregon

A YEAR AGO it looked as if the only place higher education in Oregon could go was up.

At the time, one popular university president was being forced to retire, another was under fire for questionable financial practices, legislators were tiring of colleges' pleas for more money, and Gov. Neil Goldschmidt's efforts to force out the chancellor of the university system alarmed many educators.

Today those image- and personality-related problems have been supplanted by more far-reaching issues that will determine how higher education is provided in the state, and to whom.

Money remains an issue. The Legislative Assembly does regularly appropriate increases. But recent moves to provide some of the extra funds through lottery-type programs, rather than general revenues, leave some people unsettled about the financial future of higher education.

The Oregon State Board of Higher Education, fearing its eight four-year institutions were being forced to spread their limited financial resources too thin, has agreed to cut back university enrollments by making admission more selective.

A special state committee is also examining how better to involve public and private institutions in the provision of higher education—especially graduate courses—to residents of the city's chief metropolitan area, Portland.

Oregon has a well-organized group of private colleges, among them institutions of high reputation such as Lewis and Clark and Reed Colleges.

Both the Portland committee, and several new science and technology initiatives that call for university involvement, are being promoted by Governor Goldschmidt, a Democrat who talks repeatedly of higher education's important role in diversifying the state's "economy of lumber."

Oregon's 13 community colleges are considered an essential element in state efforts to extend higher education to rural areas. But because they are costly to operate, the state is starting a telecommunications network that will further extend course offerings to rural Oregon.

Oregon has no statewide coordinating board. The Office of Educational Policy and Planning, headed by an appointee of the Governor, fills that role. Community colleges are governed by the same agency that sets policy for public schools, the State Board of Education.

DEMOGRAPHICS

Population: 2,750,000 (Rank: 30)

Age distribution:

Up to 17	24.8%
18 to 24	10.0%
25 to 34	18.7%
35 and older	46.5%

Racial and ethnic distribution:

American Indian	1.2%
Asian	1.6%
Black	1.4%
White	94.8%
Other and unknown	1.1%
Hispanic (may be any race)	2.5%

Educational attainment of adults:

At least 4 years of high school	75.6%
At least 1 to 3 years of college	38.5%
At least 4 years of college	17.9%

Per-capita personal income: $14,885

New high-school graduates in:

1989-90 (estimate)	26,971
1999-2000 (estimate)	29,119

High-school dropout rate: 27.2%

POLITICAL LEADERSHIP

Governor: Neil Goldschmidt (D), term ends 1991

Governor's higher-education adviser: Paul E. Bragdon, 225 Winter Street, N.E., Salem 97310; (503) 378-2047

U.S. Senators: Mark O. Hatfield (R), term ends 1991; Bob Packwood (R), term ends 1993

U.S. Representatives:
3 Democrats, 2 Republicans
Les AuCoin (D), Peter A. DeFazio (D), Denny Smith (R), Robert F. (Bob) Smith (R), Ron Wyden (D)

Legislative Assembly: Senate, 19 Democrats, 11 Republicans; House, 32 Democrats, 28 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	8
Public 2-year institutions	13
Private 4-year institutions	24
Private 2-year institutions	1
Total	46

Vocational institutions: 151

Statewide coordinating board:
Oregon Office of Educational
Policy and Planning
225 Winter Street, N.E.
Salem 97301
(503) 378-3921
Roger J. Bassett, director

Private-college association:
Oregon Independent
Colleges Association
7100 Southwest Hampton Street
Suite 222
Portland 97223
(503) 639-4541
Gary K. Andeen, executive director

Institutions censured by the AAUP:
None

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	3,563
At private institutions	917

Proportion with tenure:

At public institutions	72.2%
At private institutions	56.9%

Proportion who are women:

At public institutions	28.6%
At private institutions	24.5%

Average pay of full-time professors:

At public 4-year institutions	$33,981
At public 2-year institutions	$29,289
At private 4-year institutions	$30,216
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	66,616
At public 2-year institutions	66,842
At private 4-year institutions	18,870
At private 2-year institutions	329
Undergraduate	133,594
First-time freshmen	26,387
Graduate	15,723
Professional	3,340
Total	152,657

Enrollment highlights:

Women	52.5%
Full-time	55.0%
Minority	7.8%
Foreign	3.6%
10-year change in total enrollment	Up 8.1%

Degrees awarded:

Associate	4,673
Bachelor's	10,922
Master's	2,784
Doctorate	349
Professional	899

Residence of new students: State residents make up 83% of all new college students enrolled in Oregon; 87% of all Oregon residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	87.2%
Private institutions	12.8%
4-year institutions	55.8%
2-year institutions	44.2%

Proportion of students at largest public institutions who are minority-group members:

Portland Community College	11.9%
University of Oregon	6.8%

Proportion of students at largest private institutions who are minority-group members:

Lewis and Clark College	6.8%
University of Portland	8.3%

Test scores: Students averaged 923 on the S.A.T., which was taken by 52% of Oregon's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,296
At public 2-year institutions	$484
At private 4-year institutions	$7,122
At private 2-year institutions	n/a

Most expensive public institution:
University of Oregon, $1,782

Most expensive private institution:
Reed College, $12,780

Expenditures:

Public institutions	$880,696,000
Private institutions	$171,604,000

State funds for higher-education operating expenses: $361,189,000

Two-year change: Up 7%

State spending on student aid:
Need-based: $10,616,000; 16,165 awards
Non-need-based: None
Other: $1,565,000

Salary of chief executive of largest public 4-year campus:
Myles Brand, University of Oregon: $100,000 (1989-90)

Total spending on research and development by doctorate-granting universities: $132,255,000

Sources:

Federal government	62.0%
State and local governments	14.1%
Industry	3.1%
The institution itself	9.8%
Other	11.1%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$13,541,000
GI Bill	$10,941,000
Pell Grants	$45,111,000

Total federal spending on college-and-university-based research and development: $84,138,000

Selected programs:

Department of Health and Human Services	$31,964,000
National Science Foundation	$14,966,000
Department of Defense	$9,795,000
Department of Agriculture	$8,528,000
Department of Energy	$2,840,000

Largest endowment:

Willamette University	$66,153,000

Top fund raisers:

Oregon State University	$13,343,000
University of Oregon	$11,362,000
Oregon Health Sciences University	$9,987,000

MISCELLANY

★ Amvic International, a Japanese company that runs schools for English instruction, has bought 49 per cent of the campus of Warner Pacific College for $6-million. Amvic's share of the campus will be leased back to the college for 30 years, during which time the college and the company will develop and operate a center for Asian and Hispanic studies.

★ The Oregon Lottery Commission is sponsoring video-poker games in taverns and arcades with the hope of raising $25-million a biennium to support faculty salaries at the state's public colleges and universities.

★ Oregon's financially strapped public-university sports programs hope to get an $8-million shot in the arm in the 1989-90 academic year when the state begins a lottery game that involves betting on National Football League games.

★ The oldest higher-education institution in Oregon is Willamette University, founded by Christian missionaries in 1842.

Pennsylvania

HIT by the decline of the American steel industry and resulting losses in population as its manufacturing base crumbled, Pennsylvania in the 1970's and early 1980's seemed to be on the skids. So its leaders turned to some of the state's most enduring and reliable resources—its many colleges and universities—to help diversify the economy.

While the turnaround is far from complete, many of the university-based research projects—which are sponsored by the Ben Franklin Partnerships economic-development program—are given credit for helping to reinvigorate the economy.

Pennsylvania has a strong but unusual financial relationship with many of its public and private colleges. That fact contributed to the ease with which some of the economic-development connections were established.

In addition to the 14 regional "state-owned" colleges and universities that make up the State System of Higher Education, Pennsylvania has four "state-related" institutions. Those institutions—the University of Pittsburgh and Lincoln, Temple, and Pennsylvania State Universities—receive substantial portions of their financing from the state. In return, the state is accorded some control over their operations.

A third set of colleges are considered "state-assisted": They are private, but they receive state money for operating certain academic programs. Pennsylvania also has a relatively small community-college system.

The state is also home to prestigious private research institutions like the University of Pennsylvania and Carnegie Mellon University. Pennsylvania also has many private liberal-arts colleges. As the center of the Quaker religious belief in America, Pennsylvania is the site of three higher-education institutions founded by the Society of Friends that are considered to be among the most elite colleges in the country: Bryn Mawr, Haverford, and Swarthmore Colleges.

The state has two predominantly black public colleges, Lincoln and Cheyney Universities.

For all the diversity of higher education in Pennsylvania, the state is known as a leader in cooperation among different types of institution. The Pennsylvania Association of Colleges and Universities is widely credited with limiting competition and promoting harmony among the various colleges.

Higher-education officials have been striving to attract more minority students to higher education, particularly in light of the declines in the state's overall population and reports that the racial climate on some campuses is not hospitable to black students. A series of racial incidents at Penn State in the past year attracted widespread attention from the news media and the powerful black political community in the state.

DEMOGRAPHICS

Population: 11,844,000 (Rank: 5)

Age distribution:

Up to 17	23.7%
18 to 24	10.5%
25 to 34	16.8%
35 and older	49.0%

Racial and ethnic distribution:

American Indian	0.1%
Asian	0.6%
Black	8.8%
White	89.9%
Other and unknown	0.6%
Hispanic (may be any race)	1.3%

Educational attainment of adults:

At least 4 years of high school	64.7%
At least 1 to 3 years of college	24.3%
At least 4 years of college	13.6%

Per-capita personal income: $16,233

New high-school graduates in:

1989-90 (estimate)	130,654
1999-2000 (estimate)	129,358

High-school dropout rate: 21.3%

POLITICAL LEADERSHIP

Governor: Robert P. Casey (D), term ends 1991

Governor's higher-education adviser: Dan Wofford, 225 State Capitol, Harrisburg 17120; (717) 783-9180

Continued on Following Page

Pennsylvania
CONTINUED

U.S. Senators: John Heinz (R), term ends 1995; Arlen Specter (R), term ends 1993

U.S. Representatives:
12 Democrats, 11 Republicans
Robert A. Borski (D), William F. Clinger, Jr. (R), Lawrence Coughlin (R), William J. Coyne (D), Thomas M. Foglietta (D), Joseph M. Gaydos (D), George W. Gekas (R), William F. Goodling (R), William H. Gray, III (D), Paul E. Kanjorksi (D), Joe Kolter (D), Peter H. Kostmayer (D), Joseph M. McDade (R), Austin J. Murphy (D), John P. Murtha (D), Thomas J. Ridge (R), Don Ritter (R), Richard T. Schulze (R), Bud Shuster (R), Doug Walgren (D), Robert S. Walker (R), Curt Weldon (R), Gus Yatron (D)

General Assembly: Senate, 23 Democrats, 27 Republicans; House, 104 Democrats, 99 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	43
Public 2-year institutions	21
Private 4-year institutions	106
Private 2-year institutions	48
Total	218

Vocational institutions: 451

Statewide coordinating board:
State Department of Education
333 Market Street
Harrisburg 17126
(717) 787-5041
Charles R. Fuget, commissioner for higher education

Private-college association:
Commission for Independent Colleges and Universities of Pennsylvania
800 North Third Street
Harrisburg 17102
(717) 232-8649
Francis J. Michelini, president

Institutions censured by the AAUP:
Grove City College, Temple University

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	11,256
At private institutions	9,328

Proportion with tenure:

At public institutions	72.2%
At private institutions	59.2%

Proportion who are women:

At public institutions	26.1%
At private institutions	25.9%

Average pay of full-time professors:

At public 4-year institutions	$37,233
At public 2-year institutions	$32,393
At private 4-year institutions	$36,316
At private 2-year institutions	$21,808

STUDENTS

Enrollment:

At public 4-year institutions	222,583
At public 2-year institutions	88,627
At private 4-year institutions	209,846
At private 2-year institutions	33,314
Undergraduate	471,730
First-time freshmen	113,999
Graduate	68,690
Professional	13,950
Total	554,370

Enrollment highlights:

Women	52.3%
Full-time	67.0%
Minority	9.4%
Foreign	2.2%
10-year change in total enrollment	Up 16.5%

Degrees awarded:

Associate	18,586
Bachelor's	57,158
Master's	13,501
Doctorate	1,802
Professional	3,7[illegible]0

Residence of new students: State residents make up 80% of all new college students enrolled in Pennsylvania; 82% of all Pennsylvania residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	64.2%
Private institutions	35.8%
4-year institutions	63.6%
2-year institutions	36.4%

Proportion of students at largest public institutions who are minority-group members:

Pennsylvania State University main campus	6.6%
Temple University	19.5%

Proportion of students at largest private institutions who are minority-group members:

University of Pennsylvania	11.6%
Villanova University	3.9%

Test scores: Students averaged 886 on the S.A.T., which was taken by 63% of Pennsylvania's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$2,496
At public 2-year institutions	$1,626
At private 4-year institutions	$7,140
At private 2-year institutions	$4,284

Most expensive public institution:
Temple University, $4,046

Most expensive private institution:
Swarthmore College, $14,530

Expenditures:

Public institutions	$2,392,145,000
Private institutions	$3,169,219,000

State funds for higher-education operating expenses: $1,268,759,000

Two-year change: Up 15%

State spending on student aid:
Need-based: $120,373,000; 116,207 awards
Non–need-based: $625,000; 250 awards
Other: None

Salary of chief executive of largest public 4-year campus:
Bryce Jordan, Pennsylvania State University main campus: salary n/a

Total spending on research and development by doctorate-granting universities: $604,832,000

Sources:

Federal government	64.0%
State and local governments	4.0%
Industry	10.1%
The institution itself	12.7%
Other	9.2%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$68,945,000
GI Bill	$19,292,000
Pell Grants	$185,254,000

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Total federal spending on college-and-university-based research and development: $417,620,000

Selected programs:

Department of Health and Human Services	$218,543,000
National Science Foundation	$56,756,000
Department of Defense	$99,490,000
Department of Agriculture	$7,989,000
Department of Energy	$15,509,000

Largest endowment:

University of Pennsylvania	$664,637,000

Top fund raisers:

University of Pennsylvania	$106,163,000
Pennsylvania State University	$50,281,000
Carnegie Mellon University	$34,478,000

MISCELLANY

★ Lincoln University, founded in 1854, is the oldest black college in the country.

★ Learning-disabled students may get a college degree through an innovative program at College Misericordia that uses tutoring, note-taking services, and talking computers and calculators.

★ The U.S. Supreme Court was scheduled to hear a case in the fall of 1989 on whether the University of Pennsylvania must provide tenure-review files to a faculty member who alleges discrimination in the review process. The case may set the legal precedent for such disputes.

★ Established in 1834, the Dickinson School of Law is the oldest independent law school in the nation.

★ The University of Pennsylvania, founded in 1740, is the nation's oldest full-fledged university. (Harvard, which dates to 1636, was founded as a college.)

Rhode Island

RHODE ISLAND's reverence for higher education predates the national public-college movement by a century. Hence private colleges have great stature in this New England state.

That and Rhode Island's small size have tended to limit the development of an extensive state-college system.

Instead, the state has adopted a "quality, not quantity" approach to public higher education, a tactic that has proved financially beneficial to its three public institutions: the University of Rhode Island, Rhode Island College, and the Community College of Rhode Island. The state ranks 12th in the country in the amount of money it spends on each student.

Rhode Island also offers an array of comparatively generous scholarship programs designed to help residents take greatest advantage of its private colleges, including nationally regarded Brown University and the Rhode Island School of Design.

Brown's curriculum, which is relatively free of requirements, has been widely debated in national discussions about what college students should learn.

Rhode Island has avoided many of the financing headaches that plague higher-education systems elsewhere, but leaders say it is hardly immune to other pressing issues. In the last few years, the state has taken several steps to strengthen the quality of undergraduate education, offering special "challenge grants" to certain institutions. It has also been stressing programs to attract and graduate more minority students.

The Board of Governors for Higher Education is the governing board and coordinating board for all public higher education.

DEMOGRAPHICS

Population: 996,000 (Rank: 43)

Age distribution:

Up to 17	23.2%
18 to 24	11.3%
25 to 34	17.7%
35 and older	47.8%

Racial and ethnic distribution:

American Indian	0.3%
Asian	0.7%
Black	2.9%
White	95.1%
Other and unknown	1.0%
Hispanic (may be any race)	2.1%

Educational attainment of adults:

At least 4 years of high school	61.1%
At least 1 to 3 years of college	28.3%
At least 4 years of college	15.4%

Per-capita personal income: $16,892

New high-school graduates in:

1989-90 (estimate)	9,580
1999-2000 (estimate)	9,871

High-school dropout rate: 30.6%

POLITICAL LEADERSHIP

Governor: Edward D. DiPrete (R), term ends 1991

Governor's higher-education adviser: Nancy C. Rhodes, State House, Room 128, Providence 02903; (401) 277-2080

U.S. Senators: John H. Chafee (R), term ends 1995; Claiborne Pell (D), term ends 1991

U.S. Representatives:
0 Democrats, 2 Republicans
Ronald K. Machtley (R), Claudine Schneider (R)

General Assembly: Senate, 41 Democrats, 9 Republicans; House, 82 Democrats, 18 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	2
Public 2-year institutions	1
Private 4-year institutions	9
Private 2-year institutions	0
Total	12

Vocational institutions: 34

Statewide coordinating board:
Board of Governors
for Higher Education
199 Promenade Street, Room 222
Providence 02908
(401) 277-6560
Americo W. Petrocelli, commissioner

Private-college association:
Rhode Island Independent
Higher Education Association
Charles-Orms Building, Suite 120
10 Orms Street
Providence 02904
(401) 272-8270
Robert J. McKenna, president

Institutions censured by the AAUP:
None

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	1,281
At private institutions	1,084

Proportion with tenure:

At public institutions	77.8%
At private institutions	62.2%

Proportion who are women:

At public institutions	29.7%
At private institutions	23.1%

Average pay of full-time professors:

At public 4-year institutions	$38,127
At public 2-year institutions	$31,108
At private 4-year institutions	$40,104
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	23,210
At public 2-year institutions	13,107
At private 4-year institutions	35,391
At private 2-year institutions	0
Undergraduate	62,814
First-time freshmen	13,700
Graduate	8,606
Professional	288
Total	71,708

Enrollment highlights:

Women	54.0%
Full-time	63.6%
Minority	6.5%
Foreign	1.9%
10-year change in total enrollment	Up 12.6%

Degrees awarded:

Associate	3,822
Bachelor's	7,737
Master's	1,720
Doctorate	212
Professional	78

Residence of new students: State residents make up 48% of all new college students enrolled in Rhode Island; 69% of all Rhode Island residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	49.2%
Private institutions	50.8%
4-year institutions	75.6%
2-year institutions	24.4%

Proportion of students at largest public institutions who are minority-group members:

University of Rhode Island	4.5%
Community College of Rhode Island	8.3%

Continued on Following Page

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Rhode Island

CONTINUED

Proportion of students at largest private institutions who are minority-group members:

Brown University	15.4%
Johnson & Wales University	10.6%

Test scores: Students averaged 900 on the S.A.T., which was taken by 64% of Rhode Island's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,845
At public 2-year institutions	$844
At private 4-year institutions	$8,187
At private 2-year institutions	n/a

Most expensive public institution:
University of Rhode Island, $2,518

Most expensive private institution:
Brown University, $14,920

Expenditures:

Public institutions	$213,253,000
Private institutions	$315,651,000

State funds for higher-education operating expenses: $138,802,000

Two-year change: Up 18%

State spending on student aid:
Need-based: $9,130,000; 9,600 awards
Non-need-based: $120,000; 48 awards
Other: None

Salary of chief executive of largest public 4-year campus:
Edward D. Eddy, University of Rhode Island: $103,500 (1989-90)

Total spending on research and development by doctorate-granting universities: $65,516,000

Sources:

Federal government	78.3%
State and local governments	3.3%
Industry	8.2%
The institution itself	8.1%
Other	2.1%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$5,534,000
GI Bill	$2,521,000
Pell Grants	$11,237,000

Total federal spending on college-and-university-based research and development: $40,731,000

Selected programs:

Department of Health and Human Services	$11,965,000
National Science Foundation	$11,702,000
Department of Defense	$7,218,000
Department of Agriculture	$1,146,000
Department of Energy	$2,548,000

Largest endowment:

Brown University	$371,100,000

Top fund raisers:

Brown University	$35,340,000
University of Rhode Island	$5,190,000
Providence College	$3,705,000

MISCELLANY

★ A professor at the University of Rhode Island turned down a teaching award from his institution in 1989 because, he said, the university valued research over instruction.

★ Johnson & Wales University specializes in culinary arts, business, and hotel and travel management and has the largest undergraduate enrollment in "hospitality" programs of any U.S. college. To provide students with practical experience the university operates two inns, a restaurant, a clothing store, and a travel agency.

★ The University of Rhode Island is a land-grant institution that focuses on the sea. Its extension efforts are part of the institution's oceanography program, one of the best regarded in the country.

★ The oldest institution of higher education in Rhode Island is Brown University, founded in 1764.

South Carolina

In a way that was probably never intended, it is appropriate that South Carolina calls its latest higher-education initiative the "Cutting Edge."

Officials picked the name to show that their commitment of new money would put the state's colleges and universities in the vanguard of higher education.

But it may also indicate policymakers' understanding that they need a sharp tool to chisel away at some of the legacies that have evolved with public higher education in the Palmetto State.

Lacking a diversified economy, for most of this century South Carolina did not have the abundance of resources needed to develop a far-reaching higher-education network. But in the last 20 years, the number of public four-year institutions has doubled, to 12. Most of them are governed by their own boards. For resources, they learned to compete for the largesse of a few powerful legislators in the General Assembly who control the purse strings.

Financing of education remains the most critical issue in South Carolina today. A school-reform drive by former Gov. William W. Riley, a Democrat, sparked a steady rise in state support for public elementary and secondary schools, but higher education has not fared as well. Its share of the state budget has been declining.

For higher-education officials, the bright spot in that picture is the 1988 Cutting Edge initiative, a package of money to support new research efforts, endowed professorships, and other programs to improve the quality of higher education. The legislation also strengthened the power of the Commission on Higher Education to set certain academic policies and to direct the institutions' budget requests.

But old habits die hard. Clemson University and the University of South Carolina, in particular, have been reluctant to give up their practice of making direct appeals to the General Assembly on projects for which they especially want financing.

The Cutting Edge, which offers certain incentives to private-college students and faculty members, also has helped to enhance relations between public and private institutions. Tempers still flare, however, over the question of tuition grants for private-college students. Some state officials say that if students at the private two- and four-year institutions continue to benefit from the state subsidy, those colleges should also be subject to some of the Commission on Higher Education's new authority.

South Carolina officials also are still struggling with ways to improve the college-going rate of black citizens, which substantially trails that of whites. The issue is viewed as crucial to the state's economic health in the future because about one-third of the South Carolina population is black.

DEMOGRAPHICS

Population: 3,507,000 (Rank: 25)

Age distribution:

Up to 17	27.3%
18 to 24	11.8%
25 to 34	18.0%
35 and older	42.9%

Racial and ethnic distribution:

American Indian	0.2%
Asian	0.4%
Black	30.4%
White	68.8%
Other and unknown	0.2%
Hispanic (may be any race)	1.1%

Educational attainment of adults:

At least 4 years of high school	53.7%
At least 1 to 3 years of college	26.7%
At least 4 years of college	13.4%

Per-capita personal income: $12,926

New high-school graduates in:

1989-90 (estimate)	37,621
1999-2000 (estimate)	38,365

High-school dropout rate: 33.1%

POLITICAL LEADERSHIP

Governor: Carroll A. Campbell, Jr. (R), term ends 1991

Governor's higher-education adviser: Mary Willis, P.O. Box 11369, State House, Columbia 29211 (803) 734-9818

U.S. Senators: Ernest F. Hollings (D), term ends 1993; Strom Thurmond (R), term ends 1991

U.S. Representatives:
4 Democrats, 2 Republicans
Butler Derrick (D), Elizabeth J. Patterson (D), Arthur Ravenel, Jr. (R), Floyd Spence (R), John M. Spratt, Jr. (D), Robin Tallon (D)

General Assembly: Senate, 35 Democrats, 11 Republicans; House, 86 Democrats, 37 Republicans, 1 vacancy

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	12
Public 2-year institutions	21
Private 4-year institutions	20
Private 2-year institutions	11
Total	64

Vocational institutions: 66

Statewide coordinating board:
Commission on Higher Education
1333 Main Street, Suite 300
Columbia 29201
(803) 253-6260
Fred R. Sheheen, commissioner

Private-college association:
South Carolina Foundation
of Independent Colleges
P.O. Box 12007
Columbia 29211
(803) 799-7122
M. Hurst Marshall, president

Institution censured by the AAUP:
Claflin College

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	4,590
At private institutions	1,050

Proportion with tenure:

At public institutions	58.0%
At private institutions	55.7%

Proportion who are women:

At public institutions	31.9%
At private institutions	33.6%

Average pay of full-time professors:

At public 4-year institutions	$34,051
At public 2-year institutions	$22,484
At private 4-year institutions	$26,727
At private 2-year institutions	$23,458

STUDENTS

Enrollment:

At public 4-year institutions	74,799
At public 2-year institutions	38,553
At private 4-year institutions	22,381
At private 2-year institutions	5,108
Undergraduate	120,988
First-time freshmen	32,124
Graduate	17,357
Professional	2,496
Total	140,841

Enrollment highlights:

Women	55.3%
Full-time	68.5%
Minority	21.3%
Foreign	1.7%
10-year change in total enrollment	Up 12.5%

Degrees awarded:

Associate	4,766
Bachelor's	12,559
Master's	3,269
Doctorate	266
Professional	738

Residence of new students: State residents make up 82% of all new college students enrolled in South Carolina; 87% of all South Carolina residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	75.5%
Private institutions	24.5%
4-year institutions	60.2%
2-year institutions	39.8%

Proportion of students at largest public institutions who are minority-group members:

University of South Carolina at Columbia	13.7%
Clemson University	6.4%

Proportion of students at largest private institutions who are minority-group members:

Bob Jones University	7.6%
Furman University	3.9%

Test scores: Students averaged 838 on the S.A.T., which was taken by 55% of South Carolina's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,733
At public 2-year institutions	$645
At private 4-year institutions	$4,534
At private 2-year institutions	$2,714

Most expensive public institution:
University of South Carolina at Columbia, $2,448

Most expensive private institution:
Furman University, $9,074

Expenditures:

Public institutions	$951,848,000
Private institutions	$196,271,000

State funds for higher-education operating expenses: $576,598,000

Two-year change: Up 14%

State spending on student aid:
Need-based: $17,828,000; 8,000 awards
Non-need-based: None
Other: $2,268,000

Salary of chief executive of largest public 4-year campus:
James B. Holderman, University of South Carolina at Columbia: $109,167 (1988-89)

Total spending on research and development by doctorate-granting universities: $95,811,000

Sources:

Federal government	35.9%
State and local governments	14.7%
Industry	6.5%
The institution itself	38.7%
Other	4.3%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$28,147,000
GI Bill	$17,294,000
Pell Grants	$47,309,000

Total federal spending on college-and-university-based research and development: $33,516,000

Selected programs:

Department of Health and Human Services	$18,254,000
National Science Foundation	$4,735,000
Department of Defense	$2,242,000
Department of Agriculture	$5,565,000
Department of Energy	$688,000

Largest endowment:

Furman University	$62,792,000

Top fund raisers:

University of South Carolina at Columbia	$19,676,000
Clemson University	$10,311,000
Furman University	$7,872,000

MISCELLANY

★ A popular tourist attraction at Clemson University is the John C. Calhoun mansion, but Clemson students avoid it. Tradition holds that any undergraduate who enters the building will not graduate.

★ The University of South Carolina has more than 4,000 manuscripts by Scottish poets of the 17th to 20th centuries, the largest such collection outside of Scotland. The university plans a major exhibition of the works in 1990, when the first North American meeting of the Medieval and Renaissance Scottish Language Association is held on the campus.

★ Since 1982, the University of South Carolina at Columbia has been leading a nationwide effort to improve students' freshman year. The university is the site of the National Conference on the Freshman Year Experience, one of the most popular annual conferences for student-personnel administrators.

★ The W. K. Kellogg Foundation has given Clemson University a $79,600 grant to acquaint new professors with the state through an intensive orientation program.

★ The oldest higher-education institution in South Carolina is the College of Charleston, founded in 1770.

South Dakota

South Dakota now has five state universities, courtesy of its Legislature. It accomplished the task in February 1989 by simply changing the names of three small state colleges.

Some university officials, particularly those at the University of South Dakota, objected, saying the move was premature and would hurt existing research programs.

Now education leaders say they intend to turn the political move into something more than a symbolic gesture. The Board of Regents is hoping to lay out a plan that will lead to improvements in programs and salaries.

Although graced with the support of a new Governor, Republican George S. Mickelson, their effort will face formidable obstacles.

The state's agriculture- and mining-based economy remains in a slump and may not support the dramatic financial increases needed to add the range of programs found at most true universities.

Moreover, the universities must overcome a political tradition of involvement by legislators and the Governor's finance staff in how higher-education dollars are spent, particularly for research. Some higher-education officials complain that influential farming interests direct too much money toward agriculture-related research at the expense of life-science, engineering, and physical-science programs—all of which could contribute to the diversification of the state's economy.

South Dakota's population of American Indians is served both by the state institutions and by some tribally controlled colleges like Oglala Lakota College, which receive support from the federal government.

The South Dakota Board of Regents serves as the governing board and coordinating board for all public higher education.

DEMOGRAPHICS

Population: 708,000 (Rank: 45)

Age distribution:

Up to 17	27.6%
18 to 24	10.5%
25 to 34	17.1%
35 and older	44.7%

Racial and ethnic distribution:

American Indian	6.6%
Asian	0.3%
Black	0.3%
White	92.6%
Other and unknown	0.2%
Hispanic (may be any race)	0.6%

Educational attainment of adults:

At least 4 years of high school	67.9%
At least 1 to 3 years of college	31.7%
At least 4 years of college	14.0%

Per-capita personal income: $12,755

New high-school graduates in:

1989-90 (estimate)	8,269
1999-2000 (estimate)	9,139

High-school dropout rate: 20.3%

POLITICAL LEADERSHIP

Governor: George S. Mickelson (R), term ends 1991

Governor's higher-education adviser: Michael Hillman, 700 Governor's Drive, Kneit Building, Pierre 57501; (605) 773-3455

U.S. Senators: Thomas A. Daschle (D), term ends 1993; Larry Pressler (R), term ends 1991

U.S. Representative:
1 Democrat
Tim Johnson (D)

Legislature: Senate, 14 Democrats, 20 Republicans, 1 Independent; House, 24 Democrats, 46 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	7
Public 2-year institutions	0
Private 4-year institutions	9
Private 2-year institutions	3
Total	19

Vocational institutions: 24

Statewide coordinating board:
Board of Regents
207 East Capitol Avenue
Pierre 57501
(605) 773-3455
Michael Hillman, acting
executive director

Private-college association:
South Dakota Association
of Independent Colleges
P.O. Box 645
Sioux Falls 57101
(605) 332-5952
Jeffrey W. Hayzlett, executive director

Institutions censured by the AAUP:
South Dakota State Colleges
and Universities (governing board)

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	978
At private institutions	339

Proportion with tenure:

At public institutions	57.5%
At private institutions	53.7%

Proportion who are women:

At public institutions	24.7%
At private institutions	36.3%

Average pay of full-time professors:

At public 4-year institutions	$28,958
At public 2-year institutions	n/a
At private 4-year institutions	$22,753
At private 2-year institutions	$19,206

STUDENTS

Enrollment:

At public 4-year institutions	24,147
At public 2-year institutions	0
At private 4-year institutions	6,900
At private 2-year institutions	708
Undergraduate	28,178
First-time freshmen	6,623
Graduate	3,154
Professional	423
Total	31,755

Enrollment highlights:

Women	54.1%
Full-time	70.7%
Minority	6.4%
Foreign	2.1%
10-year change in total enrollment	Up 2.1%

Degrees awarded:

Associate	793
Bachelor's	3,738
Master's	719
Doctorate	65
Professional	140

Residence of new students: State residents make up 76% of all new college students enrolled in South Dakota; 74% of all South Dakota residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	76.9%
Private institutions	23.1%
4-year institutions	96.3%
2-year institutions	3.7%

Proportion of students at largest public institutions who are minority-group members:

South Dakota State University	1.1%
University of South Dakota	3.7%

Proportion of students at largest private institutions who are minority-group members:

Augustana College	1.6%
National College	6.4%

Test scores: Students averaged 19.8 on the A.C.T., which was taken by 68% of South Dakota's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,409
At public 2-year institutions	n/a
At private 4-year institutions	$5,202
At private 2-year institutions	$3,920

Most expensive public institution:
South Dakota School of Mines
and Technology, $2,145

Most expensive private institution:
Augustana College, $8,000

Expenditures:

Public institutions	$149,092,000
Private institutions	$51,675,000

State funds for higher-education operating expenses: $77,369,000

Two-year change: Up 7%

State spending on student aid:
Need-based: $506,000; 1,600 awards
Non-need-based: $90,000; 67 awards
Other: None

Salary of chief executive of largest public 4-year campus:
Robert T. Wagner, South Dakota
State University: $80,000 (1[illegible]9-90)

Total spending on research and development by doctorate-granting universities: $11,513,000

Sources:

Federal government	45.1%
State and local governments	40.8%
Industry	4.2%
The institution itself	7.6%
Other	2.3%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$3,768,000
GI Bill	$3,295,000
Pell Grants	$23,703,000

Total federal spending on college-and-university-based research and development: $4,840,000

Selected programs:

Department of Health and Human Services	$420,000
National Science Foundation	$929,000
Department of Defense	0
Department of Agriculture	$2,367,000
Department of Energy	$100,000

Largest endowment:

University of South Dakota	$13,695,000

Top fund raisers:

University of South Dakota	$2,059,000
South Dakota State University	$2,008,000
Augustana College	$1,982,000

MISCELLANY

★ A student at the University of South Dakota has written a video-

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South Dakota

CONTINUED

taped documentary on AIDS called "A Window to AIDS in South Dakota." University officials plan to show it to the institution's incoming freshmen.

★ South Dakota has two four-year colleges that are controlled by Indian tribal councils, as well as two tribal community colleges.

★ The oldest institution of higher education in South Dakota is the North American Baptist Seminary, founded in 1858.

Tennessee

College officials in Tennessee are used to watching Lamar Alexander. As Republican Governor for eight years, ending in 1987, he was a familiar face on campuses, pushing a variety of programs to improve the quality of education in the state.

For the last year they have learned to watch him in a new role—president of the University of Tennessee system. Despite the qualms of some Democratic politicians, Mr. Alexander is gaining strong political support for his leadership of the system. And now that President Bush, a long-time friend, has filled his Cabinet, rumors are no longer flying around the state that Mr. Alexander is about to leave for Washington.

The issues for which Mr. Alexander gained attention as Governor are the same ones he is pushing as system president: assessing what students learn, strengthening the links between colleges and the public schools, and using education to attract new businesses to the state.

Throughout his travels in the state, Mr. Alexander talks about the need for Tennessee's colleges to compete with the best in the nation—a point he drove home recently by hiring John J. Quinn, an administrator at Brown University, to be chancellor of the system's flagship campus at Knoxville.

Although the four campuses of the University of Tennessee dominate higher education in the state, they are not alone. Another system consists of regional public universities and community colleges. Together, both systems are coordinated by the Tennessee Higher Education Commission.

In the last year, the commission has stepped up its monitoring of yet another segment of higher education: for-profit trade schools. Many politicians in the state believe these proprietary schools are misusing student-aid funds and must be watched more closely.

The commission has also been working to make sure that the public colleges and universities attract more black students and faculty members. Unlike most Southern states, Tennessee has its own desegregation court order, with goals for increasing black enrollment. Many of those goals have not been met.

Many of the state's black students enroll at historically black colleges like Tennessee State, a public institution, or like Fisk University and Meharry Medical College, both private.

In private higher education, Tennessee has many small, church-related colleges. The most prominent of the state's private institutions is Vanderbilt University, a research university with considerable political influence in the state.

DEMOGRAPHICS

Population: 4,933,000 (Rank: 16)

Age distribution:

Up to 17	25.6%
18 to 24	10.9%
25 to 34	17.4%
35 and older	46.0%

Racial and ethnic distribution:

American Indian	0.2%
Asian	0.3%
Black	15.8%
White	83.6%
Other and unknown	0.1%
Hispanic (may be any race)	0.7%

Educational attainment of adults:

At least 4 years of high school	56.2%
At least 1 to 3 years of college	24.5%
At least 4 years of college	12.6%

Per-capita personal income: $13,873

New high-school graduates in:

1989-90 (estimate)	49,187
1999-2000 (estimate)	48,021

High-school dropout rate: 32.2%

POLITICAL LEADERSHIP

Governor: Ned Ray McWherter (D), term ends 1991

Governor's higher-education adviser: Estelle K. Woodall, State Capitol, Nashville 37219; (615) 741-5744

U.S. Senators: Albert Gore, Jr. (D), term ends 1991; Jim Sasser (D), term ends 1995

U.S. Representatives:
6 Democrats, 3 Republicans
Bob Clement (D), Jim Cooper (D), John J. Duncan, Jr. (R), Harold E. Ford (D), Bart Gordon (D), Marilyn Lloyd (D), James H. (Jimmy) Quillen (R), Don Sundquist (R), John S. Tanner (D)

General Assembly: Senate, 22 Democrats, 11 Republicans; House, 59 Democrats, 40 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	10
Public 2-year institutions	14
Private 4-year institutions	42
Private 2-year institutions	21
Total	87

Vocational institutions: 142

Statewide coordinating board:
Tennessee Higher
Education Commission
404 James Robertson Parkway
Parkway Towers, Suite 1900
Nashville 37219
(615) 741-3605
Arliss L. Roaden, executive director

Private-college association:
Tennessee Council of Private Colleges
1900 Belmont Boulevard
Nashville 37212
(615) 383-7001
William E. Troutt, president

Institutions censured by the AAUP:
None

Institution under NCAA sanctions:
Memphis State University

FACULTY MEMBERS

Full-time faculty members:

At public institutions	5,233
At private institutions	2,299

Proportion with tenure:

At public institutions	66.0%
At private institutions	54.7%

Proportion who are women:

At public institutions	29.4%
At private institutions	27.2%

Average pay of full-time professors:

At public 4-year institutions	$35,396
At public 2-year institutions	$26,714
At private 4-year institutions	$32,047
At private 2-year institutions	$18,897

STUDENTS

Enrollment:

At public 4-year institutions	102,702
At public 2-year institutions	51,402
At private 4-year institutions	42,302
At private 2-year institutions	5,600
Undergraduate	175,569
First-time freshmen	34,492
Graduate	20,931
Professional	5,506
Total	202,006

Enrollment highlights:

Women	53.8%
Full-time	64.6%
Minority	15.7%
Foreign	2.2%
10-year change in total enrollment	Up 7.3%

Degrees awarded:

Associate	5,568
Bachelor's	17,328
Master's	4,000
Doctorate	576
Professional	1,344

Residence of new students: State residents make up 77% of all new college students enrolled in Tennessee; 85% of all Tennessee residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	72.3%
Private institutions	27.7%
4-year institutions	66.7%
2-year institutions	33.3%

Proportion of students at largest public institutions who are minority-group members:

University of Tennessee at Knoxville	5.9%
Memphis State University	18.6%

Proportion of students at largest private institutions who are minority-group members:

Vanderbilt University	5.3%
Belmont College	4.0%

Test scores: Students averaged 18.0 on the A.C.T., which was taken by 65% of Tennessee's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,133
At public 2-year institutions	$660
At private 4-year institutions	$5,075
At private 2-year institutions	$2,323

Most expensive public institution:
University of Tennessee at Knoxville, $1,582

Most expensive private institution:
Vanderbilt University, $13,345

Expenditures:

Public institutions	$1,081,052,000
Private institutions	$684,948,000

State funds for higher-education operating expenses: $673,881,000

Two-year change: Up 9%

State spending on student aid:
Need-based: $12,404,000; 19,000 awards
Non–need-based: $136,000; 34 awards
Other: None

Salary of chief executive of largest public 4-year campus:
John J. Quinn, University of Tennessee at Knoxville: $135,000 (1989-90)

Total spending on research and development by doctorate-granting universities: $144,144,000

Sources:

Federal government	56.1%
State and local governments	17.9%
Industry	9.6%
The institution itself	13.3%
Other	3.1%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$22,839,000
GI Bill	$15,271,000
Pell Grants	$70,015,000

Total federal spending on college-and-university-based research and development: $107,518,000

Selected programs:

Department of Health and Human Services	$68,453,000
National Science Foundation	$8,742,000
Department of Defense	$7,787,000
Department of Agriculture	$6,195,000
Department of Energy	$9,900,000

Largest endowment:

Vanderbilt University	$499,064,000

Top fund raisers:

Vanderbilt University	$34,922,000
University of Tennessee	$29,636,000
Meharry Medical College	$10,479,000

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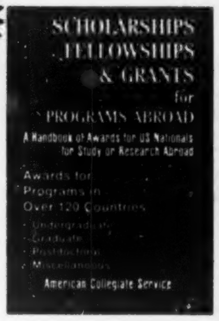
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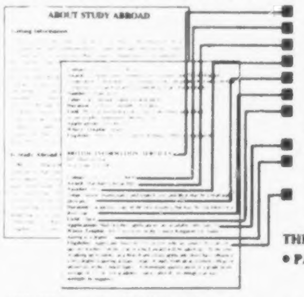

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MISCELLANY

★ The University of the South has received what a top official describes as "one of the more unique gifts" the institution has ever received—a 100-acre lake and 450 acres of surrounding land. Income from the donation—from the Day Foundation—will be used to support faculty awards for teaching and research.

★ With an $85,000 grant from the U.S. Department of Education, the University of Tennessee is developing a series of videotapes to help faculty members identify and eliminate subtle racism in their classroom behavior.

★ A study of students at the University of Tennessee shows that in a classroom lecture they pay attention only about 60 per cent of the time.

★ The oldest institution of higher education in the state is the University of Tennessee at Knoxville, founded in 1794.

Texas

IN TEXAS, anything that is big, involves billions of dollars, and includes football is sure to be closely watched by state officials. Higher education clearly qualifies.

Texas higher education is a product of Texas politics. Public colleges are large, spread throughout the state, and of uneven quality. Legislators care deeply about what goes on at campuses in their districts, and governors consider appointments to the major university governing boards as some of their most significant choices.

The organization of Texas higher education is somewhat unwieldy. The state has 15 governing boards, which operate under a coordinating body. The most powerful of the boards govern the most prestigious systems: the arch-rivals University of Texas and Texas A&M University. The two systems share the proceeds of a special trust fund of oil revenue that has allowed them to prosper even when state coffers were not full.

When the oil boom of the 1970's hit Texas, the state became much more wealthy, and its aspirations for its public colleges grew significantly. New facilities were built and faculty members were recruited from around the country.

During the 80's, when the price of oil dropped, the Texas economy plunged with it. Public colleges and universities faced a series of tight budgets, and many of their star faculty members went back where they had come from.

But the collapse of the oil-based economy was not all bad for higher education. Business leaders and politicians became convinced that the Texas economy needed to diversify, and many of them saw education as the key to doing that.

Led by business executives like H. Ross Perot, who has near-mythological status in Texas, special commissions were created that recommended raising academic standards in the public schools and colleges and raising taxes to bring about further improvements. They also urged the public universities to become much more involved with economic-development activities.

Many of the reforms have been adopted, and the Texas economy has started to rebound. Texas university officials received a tremendous boost when the U.S. Energy Department decided to place the Superconducting Supercollider in the state. It will bring with it billions of dollars in construction projects and leading researchers from around the world.

Even with the economy recovering, however, Texas colleges face many difficult issues.

The political leadership in Texas will undergo many changes in the next two years. Gov. William P. Clements, Jr., a Republican who has feuded with many college officials, is retiring in 1991, and colleges are working to gain the support of the many politicians seeking to replace him.

Lieut. Gov. William P. Hobby, a Democrat, will also be stepping down. Because his position is extremely powerful in Texas and Mr. Hobby has been a staunch supporter of education at all levels, college advocates will be following the race for lieutenant governor with care.

Texans are also discovering that some of the reforms they enacted a few years ago are difficult to carry out. A requirement that college students pass a test of basic skills to enroll in credit courses is creating problems because large numbers of students, especially those from minority groups, are expected to fail. Colleges are now scrambling to set up remedial programs to help those students.

Colleges and universities in the state have also had difficulty educating the multi-ethnic population of Texas. Many of the growing numbers of black and Hispanic students in the state's public schools do not graduate; many of those who do graduate from high school do not attend college.

People who live in South Texas, a predominantly Hispanic area, have long complained that their public colleges do not receive enough money or attention. In the past year, in an attempt to improve that situation and possibly settle a lawsuit filed over it, the Texas Legislature approved a measure to bring the South Texas colleges into the U.T. and A&M systems.

Though less of a force in the state than public higher education, private colleges and universities do play an important role in Texas. Rice University is the most prominent of the research institutions.

Several other private institutions, most of them with religious ties, also have strong followings. Among those colleges are Baylor, Southern Methodist, and Texas Christian Universities.

DEMOGRAPHICS

Population: 17,451,000 (Rank: 3)

Age distribution:

Up to 17	29.6%
18 to 24	10.9%
25 to 34	18.6%
35 and older	40.8%

Racial and ethnic distribution:

American Indian	0.4%
Asian	0.9%
Black	12.0%
White	79.4%
Other and unknown	7.2%
Hispanic (may be any race)	21.0%

Educational attainment of adults:

At least 4 years of high school	62.6%
At least 1 to 3 years of college	33.8%
At least 4 years of college	16.9%

Per-capita personal income: $14,586

New high-school graduates in:

1989-90 (estimate)	187,138
1999-2000 (estimate)	214,121

High-school dropout rate: 34.9%

POLITICAL LEADERSHIP

Governor: William P. Clements, Jr. (R), term ends 1991

Governor's higher-education adviser: Richard Hall, Capitol Station, P.O. Box 12428, Austin 78711; (512) 463-1900

U.S. Senators: Lloyd Bentsen (D), term ends 1995; Phil Gramm (R), term ends 1991

U.S. Representatives: 17 Democrats, 8 Republicans, 2 vacancies

Michael A. Andrews (D), Bill Archer (R), Richard K. Armey (R), Steve Bartlett (R), Joe Barton (R), Jack Brooks (D), John Bryant (D), Albert G. Bustamante (D), Jim Chapman (D), Ronald D. Coleman (D), Larry Combest (R), E de la Garza (D), Tom DeLay (R), Jack Fields (R), Martin Frost (D), Henry B. Gonzalez (D), Ralph M. Hall (D), Greg Laughlin (D), Marvin Leath (D), Solomon P. Ortiz (D), J.J. Pickle (D), Bill Sarpalius (D), Lamar S. Smith (R), Charles W. Stenholm (D), Charles Wilson (D)

Legislature: Senate, 23 Democrats, 8 Republicans; House, 93 Democrats, 57 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	40
Public 2-year institutions	66
Private 4-year institutions	57
Private 2-year institutions	8
Total	171

Vocational institutions: 447

Statewide coordinating board:

Texas Higher Education
Coordinating Board
P.O. Box 12788, Capitol Station
Austin 78711
(512) 462-6400
Kenneth H. Ashworth, commissioner

Private-college association:

Independent Colleges and Universities
of Texas
P.O. Box 13105
Austin 78711
(512) 472-9522
Carol L. McDonald, president

Institutions censured by the AAUP: Amarillo College, Blinn College, Frank Phillips College, Houston Baptist University, Southwestern Adventist College, University of Texas of the Permian Basin

Institutions under NCAA sanctions: Southern Methodist University, Texas A&M University, University of Houston, West Texas State University

FACULTY MEMBERS

Full-time faculty members:

At public institutions	20,004
At private institutions	4,035

Proportion with tenure:

At public institutions	60.6%
At private institutions	53.4%

Proportion who are women:

At public institutions	29.4%
At private institutions	27.2%

Average pay of full-time professors:

At public 4-year institutions	$36,301
At public 2-year institutions	$29,994
At private 4-year institutions	$34,824
At private 2-year institutions	$22,761

STUDENTS

Enrollment:

At public 4-year institutions	376,531
At public 2-year institutions	333,179
At private 4-year institutions	88,975
At private 2-year institutions	3,541
Undergraduate	694,452
First-time freshmen	134,756
Graduate	92,400
Professional	15,374
Total	802,226

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Texas
CONTINUED

Enrollment highlights:

Women	51.9%
Full-time	54.8%
Minority	27.7%
Foreign	3.1%
10-year change in total enrollment	Up 23.9%

Degrees awarded:

Associate	20,816
Bachelor's	57,438
Master's	17,174
Doctorate	2,079
Professional	4,456

Residence of new students: State residents make up 91% of all new college students enrolled in Texas; 94% of all Texas residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	92.2%
Private institutions	7.8%
4-year institutions	53.4%
2-year institutions	46.6%

Proportion of students at largest public institutions who are minority-group members:

University of Texas at Austin	17.0%
Texas A&M University main campus	9.9%

Proportion of students at largest private institutions who are minority-group members:

Baylor University	5.9%
Southern Methodist University	8.4%

Test scores: Students averaged 879 on the S.A.T., which was taken by 46% of Texas' high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$885
At public 2-year institutions	$300
At private 4-year institutions	$5,510
At private 2-year institutions	$2,184

Most expensive public institution:
Texas A&M University main campus, $1,200

Most expensive private institution:
Southern Methodist University, $9,880

Expenditures:

Public institutions	$4,375,082,000
Private institutions	$993,824,000

State funds for higher-education operating expenses: $2,245,958,000

Two-year change: Up 14%

State spending on student aid:
Need-based: $24,487,000; 20,750 awards
Non-need-based: None
Other: $79,748,000

Salary of chief executive of largest public 4-year campus:
William H. Cunningham, University of Texas at Austin: $62,160 from state plus $105,840 from private donations (1989-90)

Total spending on research and development by doctorate-granting universities: $810,993,000

Sources:	
Federal government	49.7%
State and local governments	11.0%
Industry	5.7%
The institution itself	21.3%
Other	12.2%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$59,956,000
GI Bill	$66,281,000
Pell Grants	$258,262,000

Total federal spending on college-and-university-based research and development: $378,266,000

Selected programs	
Department of Health and Human Services	$225,582,000
National Science Foundation	$35,731,000
Department of Defense	$56,096,000
Department of Agriculture	$17,429,000
Department of Energy	$15,852,000

Largest endowment:

University of Texas System	$2,779,796,000

Top fund raisers:

Texas A&M University	$44,713,000
University of Texas Medical Branch	$43,145,000
University of Texas at Austin	$32,548,000

MISCELLANY

★ Before becoming U.S. Secretary of Education, Lauro F. Cavazos served as president of Texas Tech University.

★ President Bush has reportedly decided to set up his Presidential library at a campus in his adopted home state of Texas, and universities are already vying to provide a site for it.

★ The University of Texas Southwestern Medical Center received over $60-million in gifts in a single month, December 1988, without running a formal capital campaign.

★ Texas lawmakers have approved legislation requiring state universities to offer courses in English proficiency to foreign-born faculty members who do not speak the language well enough to be understood in their classrooms.

★ A long-standing dispute between Texas Methodists and Baptists obscures any higher-education institution's clear claim to being the oldest in the state. Southwestern University, a private liberal-arts college affiliated with the United Methodist Church, says it was founded in 1840 as Rutersville College. Baylor University, a private institution affiliated with the Southern Baptist Church, considers that a highly questionable claim and maintains that its 1845 charter from the Republic of Texas Congress makes it the state's oldest college or university.

Utah

THE UNIVERSITY OF UTAH attracted worldwide attention not long ago when two of its researchers announced they had achieved nuclear fusion at room temperature. Many scientists doubt the claim, but the announcement once again pointed to the increased prominence of the university's research programs.

In medicine, physics, and space-related fields, the university has greatly improved its programs in recent years. At the same time, it has been accused of moving more quickly than it should—out of a desire to gain publicity for its accomplishments.

The university is part of a rapidly growing system governed and coordinated by the Utah Board of Regents. The population in Utah is skyrocketing, and the colleges are hard pressed to keep up with the growth.

Utah's conservative fiscal traditions add to the problems. Lawmakers do not like to approve tax increases, leaving some college officials at a loss as to how they should maintain enough space on their campuses. The past year saw a major victory for colleges, however, when Utah voters rejected a series of tax cuts that would have slashed the budgets of most state agencies, including public colleges and universities.

Utah has a highly influential private-college sector. Because of the state's Mormon heritage, many families want their children to attend a Mormon institution. The most prestigious is Brigham Young University, which has a strong political presence in the state.

DEMOGRAPHICS

Population: 1,750,000 (Rank: 35)

Age distribution:

Up to 17	37.3%
18 to 24	11.5%
25 to 34	18.0%
35 and older	33.2%

Racial and ethnic distribution:

American Indian	1.4%
Asian	1.4%
Black	0.6%
White	94.7%
Other and unknown	1.9%
Hispanic (may be any race)	4.1%

Educational attainment of adults:

At least 4 years of high school	80.0%
At least 1 to 3 years of college	44.1%
At least 4 years of college	19.9%

Per-capita personal income: $12,193

New high-school graduates in:

1989-90 (estimate)	23,098
1999-2000 (estimate)	33,432

High-school dropout rate: 19.4%

POLITICAL LEADERSHIP

Governor: Norman H. Bangerter (R), term ends 1993

Governor's higher-education adviser: Colleen L. Colton, 210 State Capitol, Salt Lake City 84114; (801) 538-1000

U.S. Senators: Jake Garn (R), term ends 1993; Orrin G. Hatch (R), term ends 1995

U.S. Representatives:
1 Democrat, 2 Republicans
Wayne Owens (D), James V. Hansen (R), Howard C. Nielson (R)

Legislature: Senate, 7 Democrats, 22 Republicans; House, 28 Democrats, 47 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	4
Public 2-year institutions	5
Private 4-year institutions	2
Private 2-year institutions	3
Total	14

Vocational institutions: 59

Statewide coordinating board:
Utah System of Higher Education
355 West North Temple
3 Triad Center, Suite 550
Salt Lake City 84180
(801) 538-5247
Wm. Rolfe Kerr, commissioner of higher education

Private-college association:
None

Institution censured by the AAUP:
Westminster College of Salt Lake City

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	2,367
At private institutions	n/a

Proportion with tenure:

At public institutions	63.9%
At private institutions	n/a

Proportion who are women:

At public institutions	21.4%
At private institutions	44.2%

Average pay of full-time professors:

At public 4-year institutions	$34,060
At public 2-year institutions	$26,460
At private 4-year institutions	$25,557
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	52,622
At public 2-year institutions	21,831
At private 4-year institutions	31,220
At private 2-year institutions	1,119
Undergraduate	95,676
First-time freshmen	15,285
Graduate	9,840
Professional	1,276
Total	106,792

Enrollment highlights:

Women	47.0%
Full-time	63.5%
Minority	5.3%
Foreign	4.4%
10-year change in total enrollment	Up 20.7%

Degrees awarded:

Associate	3,151
Bachelor's	11,085
Master's	2,403
Doctorate	361
Professional	365

Residence of new students: State residents make up 70% of all new college students enrolled in Utah; 87% of all Utah residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	84.7%
Private institutions	15.3%
4-year institutions	61.1%
2-year institutions	38.9%

Proportion of students at largest public institutions who are minority-group members:

University of Utah	5.8%
Utah State University	2.8%

Proportion of students at largest private institutions who are minority-group members:

Brigham Young University	1.7%
Westminster College of Salt Lake City	7.2%

Test scores: Students averaged 18.9 on the A.C.T., which was taken by 70% of Utah's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,159
At public 2-year institutions	$884
At private 4-year institutions	$1,498
At private 2-year institutions	n/a

Most expensive public institution:
University of Utah, $1,769

Most expensive private institution:
Westminster College of Salt Lake City, $6,060

Expenditures:

Public institutions	$669,714,000
Private institutions	$194,649,000

State funds for higher-education operating expenses: $259,615,000

Two-year change: Up 6%

State spending on student aid:
Need-based: $1,081,000; 1,700 awards
Non-need-based: $984,000; 67 awards
Other: $7,578,000

Salary of chief executive of largest public 4-year campus:
Chase N. Peterson, University of Utah: $107,568 (1989-90)

Total spending on research and development by doctorate-granting universities: $120,878,000

Sources:	
Federal government	67.3%
State and local governments	11.1%
Industry	4.7%
The institution itself	13.4%
Other	3.5%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$10,014,000
GI Bill	$6,491,000
Pell Grants	$45,124,000

Total federal spending on college-and-university-basod research and development: $86,950,000

Selected programs:	
Department of Health and Human Services	$38,313,000
National Science Foundation	$10,559,000
Department of Defense	$23,556,000
Department of Agriculture	$2,982,000
Department of Energy	$5,215,000

Largest endowment:

Utah State University	$12,854,000

Top fund raisers:

University of Utah	$29,179,000
Utah State University	$5,228,000
Southern Utah State College	$1,602,000

MISCELLANY

★ Following clashes between the administration and the faculty that led to the resignation of 17 professors in 1915, the University of Utah became the subject of the first institutional investigation ever conducted by the American Association of University Professors. John Dewey, the philosopher, was a member of the A.A.U.P. investigating team.

★ Terrel H. Bell, former U.S. Secretary of Education, is now a professor of educational administration at the University of Utah.

★ Brigham Young University has one of the largest populations of students who are multilingual. They learned the languages, especially Asian ones, when they served abroad as Mormon missionaries before attending college.

★ The oldest institution of higher education in the state is the University of Utah, founded in 1850.

Vermont

Although the economic boom that has filled Vermont's coffers during the last two years has begun to lose momentum, support for higher education in the Green Mountain State is still strong. Lawmakers gave the Vermont State Colleges System a hefty 13-per-cent increase and gave the University of Vermont a 9-per-cent increase for fiscal 1989-90.

At the urging of higher-education officials, Gov. Madeleine M. Kunin, a Democrat and former college instructor, appointed a panel to study the issues confronting colleges, such as access, tuition rates, and the effect of increasing enrollments.

That picture of financial and political support, however, belies the friction between the University of Vermont and a small but vocal group of lawmakers who have had headline-making squabbles with the university about administrative salaries, tuition rates, and whether the university is a public entity or a private institution supported by public funds.

Despite the political friction, in recent years the University of Vermont has become increasingly popular among undergraduates from around the country.

The state has no formal coordinating board, but the Vermont Higher Education Planning Commission fills many of the roles that such boards play in other states. There are two governing boards: the University of Vermont Board of Trustees and the Vermont State Colleges Board of Trustees. The authority of the latter board includes community colleges.

Vermont also has a strong tradition of supporting private institutions, in which more than one-third of Vermont students enroll. The better-known private colleges include Bennington, which attracts attention for its independent-study programs and high tuition rates, and Middlebury, which is among the top institutions in the country in foreign-language instruction.

DEMOGRAPHICS

Population: 557,000 (Rank: 50)

Age distribution:

Up to 17	25.3%
18 to 24	11.7%
25 to 34	18.5%
35 and older	44.3%

Racial and ethnic distribution:

American Indian	0.2%
Asian	0.3%
Black	0.2%
White	99.1%
Other and unknown	0.1%
Hispanic (may be any race)	0.6%

Educational attainment of adults:

At least 4 years of high school	71.0%
At least 1 to 3 years of college	34.7%
At least 4 years of college	19.0%

Per-capita personal income: $15,302

New high-school graduates in:

1989-90 (estimate)	6,540
1999-2000 (estimate)	7,372

High-school dropout rate: 22.0%

POLITICAL LEADERSHIP

Governor: Madeleine M. Kunin (D), term ends 1991

Governor's higher-education adviser: Judith B. Stephany, Pavilion Office Building, Montpelier 05602; (802) 828-3333

U.S. Senators: James M. Jeffords (R), term ends 1995; Patrick J. Leahy (D), term ends 1993

U.S. Representative:
1 Republican
Peter Smith (R)

General Assembly: Senate, 16 Democrats, 14 Republicans; House, 74 Democrats, 76 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	4
Public 2-year institutions	2
Private 4-year institutions	14
Private 2-year institutions	3
Total	23

Vocational institutions: 13

Statewide coordinating board:
Vermont Higher Education
Planning Commission
109 State Street
Pavilion Office Building, 5th Floor
Montpelier 05602
(802) 828-2376
Suzanne A. Villanti, executive director

Private-college association:
Association of Vermont
Independent Colleges
Shaw Mansion Road, Box 9170
Waterbury Center 05677
(802) 244-5586
Judy P. Rosenstreich,
executive director

Institutions censured by the AAUP:
None

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	742
At private institutions	687

Proportion with tenure:

At public institutions	63.6%
At private institutions	57.1%

Proportion who are women:

At public institutions	23.7%
At private institutions	29.4%

Average pay of full-time professors:

At public 4-year institutions	$35,520
At public 2-year institutions	$27,525
At private 4-year institutions	$31,077
At private 2-year institutions	$22,235

STUDENTS

Enrollment:

At public 4-year institutions	15,390
At public 2-year institutions	3,970
At private 4-year institutions	11,809
At private 2-year institutions	2,073
Undergraduate	29,492
First-time freshmen	6,578
Graduate	3,381
Professional	369
Total	33,242

Enrollment highlights:

Women	57.3%
Full-time	69.6%
Minority	2.4%
Foreign	1.7%
10-year change in total enrollment	Up 12.7%

Degrees awarded:

Associate	1,128
Bachelor's	4,080
Master's	839
Doctorate	41
Professional	193

Residence of new students: State residents make up 45% of all new college students enrolled in Vermont; 64% of all Vermont residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	47.2%
Private institutions	52.8%
4-year institutions	91.6%
2-year institutions	8.4%

Proportion of students at largest public institutions who are minority-group members:

University of Vermont	2.4%
Community College of Vermont	1.2%

Proportion of students at largest private institutions who are minority-group members:

Norwich University	5.3%
Middlebury College	3.8%

Test scores: Students averaged 909 on the S.A.T., which was taken by 67% of Vermont's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$2,942
At public 2-year institutions	$1,966
At private 4-year institutions	$6,393
At private 2-year institutions	$4,858

Most expensive public institution:
University of Vermont, $3,986

Most expensive private institution:
Landmark College, $18,850

Expenditures:

Public institutions	$188,112,000
Private institutions	$150,689,000

State funds for higher-education operating expenses: $53,855,000

Two-year change: Up 17%

State spending on student aid:
Need-based: $9,563,000; 10,474 awards
Non–need-based: None
Other: $221,000

Salary of chief executive of largest public 4-year campus:
Lattie F. Coor, University of Vermont: $148,785 (1989-90)

Total spending on research and development by doctorate-granting universities: $31,547,000

Sources:

Federal government	70.7%
State and local governments	5.7%
Industry	9.1%
The institution itself	10.6%
Other	3.9%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$3,892,000
GI Bill	$860,000
Pell Grants	$6,562,000

Total federal spending on college-and-university-based research and development: $24,108,000

Selected programs:

Department of Health and Human Services	$19,270,000
National Science Foundation	$1,208,000
Department of Defense	$230,000
Department of Agriculture	$1,969,000
Department of Energy	$208,000

Largest endowment:

Middlebury College	$197,563,000

Top fund raisers:

Middlebury College	$9,423,000
University of Vermont	$8,452,000
Bennington College	$1,735,000

MISCELLANY

★ In 1819 Alden Partridge founded the American Literary, Scientific, and Military Academy in Norwich. It was the first private technical and military school in the world, and is now called Norwich University.

★ The University of Vermont has been given the scientific and personal papers of a biochemist it fired in 1953 for refusing to help a Congressional search for Communists in higher education. The papers of Alex Novikoff were donated by Phyllis Novikoff, his widow, who said the gift was a demonstration that he had forgiven the university before his death in 1987.

★ The oldest institution of higher education in the state is the University of Vermont, founded in 1791.

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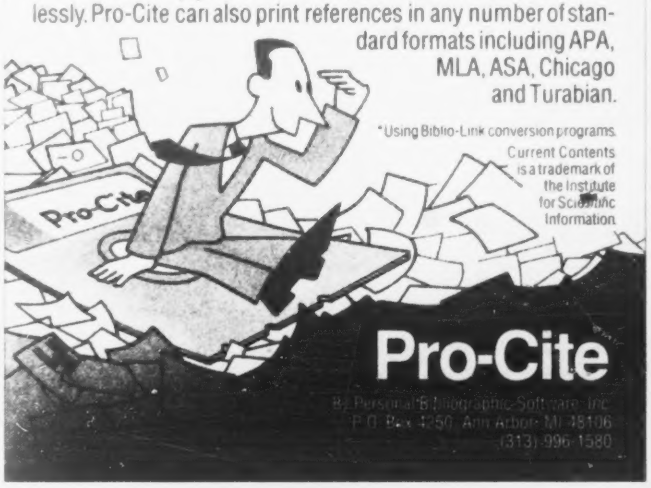

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Virginia

IT SAYS something about Virginia when the biggest controversies affecting public colleges and universities arise because people are fighting to get into them.

Virginia's public colleges are old and distinguished. The College of William and Mary, which is approaching its tricentennial, predates the American Revolution.

The quality of its public institutions, however, is also a source of political tension, because so many students from outside the state want to attend. Some legislators say that, rather than admit so many out-of-state students, who are in effect being subsidized by state taxpayers, institutions like William and Mary and the University of Virginia should cater more to the state's residents.

The issue is expected to be highlighted in the 1989 gubernatorial campaign. (Under Virginia law, Gov. Gerald L. Baliles cannot succeed himself.) Governor Baliles and his predecessor and fellow Democrat Charles S. Robb, now a U.S. Senator, were able to demonstrate concern for higher education with generous budgets because the 1980's have been prosperous times for the state.

The projected growth in population, especially in the suburbs of Washington and the Hampton Roads region, has also inspired a far-reaching state study on how to provide higher education in the future. The Commission on the University of the 21st Century is examining broad pedagogical issues as well as population trends.

Virginia has been praised for taking such a long-range approach to higher-education planning. But the process has led to still more debates.

At the University of Virginia, many faculty members are concerned that the institution may grow too fast. In northern Virginia, George Mason University, at 32 years old a young institution by Virginia's standards, has been aggressively courting national stature and trying to prevent other public universities from starting programs nearby.

Virginia's record in encouraging the enrollment of black students in its predominantly white colleges and universities has been spotty, particularly considering that more than a quarter of its citizens are black. But recent efforts, like the retention program under way at William and Mary, are showing promise. Historically black institutions in the state include Virginia State and Norfolk State Universities, which are public, and Hampton University, a private institution.

Autonomy is a highly revered principle of higher-education governance in Virginia. The State Council of Higher Education for Virginia, the coordinating board, enjoys the trust of lawmakers and has a reputation for producing respected studies on education issues. But most power rests with the Board of Visitors of each four-year institution. Public two-year institutions are governed by the State Board for Community Colleges.

DEMOGRAPHICS

Population: 6,068,000 (Rank: 12)

Age distribution:

Up to 17	24.4%
18 to 24	11.8%
25 to 34	18.5%
35 and older	45.3%

Racial and ethnic distribution:

American Indian	0.2%
Asian	1.3%
Black	18.9%
White	79.2%
Other and unknown	0.4%
Hispanic (may be any race)	1.5%

Educational attainment of adults:

At least 4 years of high school	62.4%
At least 1 to 3 years of college	34.0%
At least 4 years of college	19.1%

Per-capita personal income: $17,675

New high-school graduates in:

1989-90 (estimate)	68,203
1999-2000 (estimate)	82,332

High-school dropout rate: 26.0%

POLITICAL LEADERSHIP

Governor: Gerald L. Baliles (D), term ends 1990

Governor's higher-education adviser: Donald J. Finley, P.O. Box 1475, Richmond 23212; (804) 786-1151

U.S. Senators: Charles S. Robb (D), term ends 1995; John W. Warner (R), term ends 1991

U.S. Representatives:
5 Democrats, 5 Republicans
Herbert H. Bateman (R), Thomas J. Bliley, Jr. (R), Rick Boucher (D), Jim Olin (D), Stan Parris (R), Lewis F. Payne, Jr. (D), Owen B. Pickett (D), Norman Sisisky (D), D. French Slaughter, Jr. (R), Frank R. Wolf (R)

General Assembly: Senate, 30 Democrats, 9 Republicans, 1 vacancy; House, 64 Democrats, 34 Republicans, 1 Independent; 1 vacancy

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	15
Public 2-year institutions	24
Private 4-year institutions	32
Private 2-year institutions	8
Total	79

Vocational institutions: 191

Statewide coordinating board:
State Council of Higher Education
James Monroe Building
101 North 14th Street
Richmond 23219
(804) 225-2600
Gordon K. Davies, director

Private-college association:
Council of Independent Colleges
in Virginia
P.O. Box 1005
Bedford 24523
(703) 586-0606
Robert B. Lambeth, Jr., president

Institutions censured by the AAUP:
Virginia Community College System

Institution under NCAA sanctions:
Virginia Polytechnic Institute and State University

FACULTY MEMBERS

Full-time faculty members:

At public institutions	8,275
At private institutions	1,795

Proportion with tenure:

At public institutions	52.2%
At private institutions	58.9%

Proportion who are women:

At public institutions	27.8%
At private institutions	29.1%

Average pay of full-time professors:

At public 4-year institutions	$40,038
At public 2-year institutions	$30,747
At private 4-year institutions	$30,270
At private 2-year institutions	$20,173

STUDENTS

Enrollment:

At public 4-year institutions	151,589
At public 2-year institutions	123,994
At private 4-year institutions	42,011
At private 2-year institutions	1,432
Undergraduate	276,121
First-time freshmen	48,972
Graduate	36,821
Professional	6,084
Total	319,026

Enrollment highlights:

Women	55.9%
Full-time	54.9%
Minority	17.6%
Foreign	1.6%
10-year change in total enrollment	Up 23.9%

Degrees awarded:

Associate	7,037
Bachelor's	24,010
Master's	5,589
Doctorate	693
Professional	1,643

Residence of new students: State residents make up 75% of all new college students enrolled in Virginia; 75% of all Virginia residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	82.3%
Private institutions	17.7%
4-year institutions	62.2%
2-year institutions	37.8%

Proportion of students at largest public institutions who are minority-group members:

Northern Virginia Community College	18.8%
Virginia Polytechnic Institute and State University	7.9%

Proportion of students at largest private institutions who are minority-group members:

Liberty University	5.9%
University of Richmond	4.9%

Test scores: Students averaged 902 on the S.A.T., which was taken by 65% of Virginia's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$2,070
At public 2-year institutions	$775
At private 4-year institutions	$5,724
At private 2-year institutions	$4,644

Most expensive public institution:
Virginia Military Institute, $3,560

Most expensive private institution:
Sweet Briar College, $10,990

Expenditures:

Public institutions	$1,825,156,000
Private institutions	$387,455,000

State funds for higher-education operating expenses: $1,033,096,000

Two-year change: Up 15%

State spending on student aid:
Need-based: $5,851,000; 7,500 awards
Non–need-based: $18,047,000; 13,621 awards
Other: None

Salary of chief executive of largest public 4-year campus:
James D. McComas, Virginia Polytechnic Institute and State University: $101,574 from state plus $41,804 from private donations (1989-90)

Total spending on research and development by doctorate-granting universities: $206,621,000

Sources:

Federal government	56.5%
State and local governments	17.6%
Industry	8.8%
The institution itself	13.1%
Other	4.0%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$39,089,000
GI Bill	$28,119,000
Pell Grants	$57,948,000

Total federal spending on college-and-university-based research and development: $118,162,000

Selected programs:

Department of Health and Human Services	$61,116,000
National Science Foundation	$13,087,000
Department of Defense	$11,015,000
Department of Agriculture	$6,700,000
Department of Energy	$4,477,000

Largest endowment:

University of Virginia	$396,692,000

Top fund raisers:

University of Virginia	$45,577,000
Virginia Polytechnic Institute and State University	$26,272,000
University of Richmond	$15,189,000

MISCELLANY

★ The president's home at the College of William and Mary was built by the French government after the American Revolution. French soldiers had accidentally burned down the original during the war.

★ Getting a drop on 1992, George Mason University has opened a Center for European Community Studies, apparently the first such center in the United States.

★ Thomas Jefferson, who considered the creation of the University of Virginia one of his greatest achievements, opposed the awarding of degrees as "artificial embellishments." However, in 1831, six years after the university opened and five years after Jefferson's death, the university abandoned his no-degree policy.

★ Top prospective freshmen will be guaranteed admission to the University of Richmond's law school, following completion of their undergraduate studies. The program, which is scheduled to begin in the fall of 1990, is intended to attract undergraduates with high grades and to get a more diverse law-school population.

★ Officials of Liberty University began mandatory drug testing of students in the past academic year—the first such effort at an American college or university.

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★ Officials at Virginia Polytechnic Institute and State University, hoping that parental influence would prevent champagne corks from popping and beach balls from being punted during the 1989 commencement ceremony, asked graduates to sit with their parents.

★ The oldest institution of higher education in Virginia is the College of William and Mary, founded in 1693.

Washington

ALTHOUGH Washington's population is not growing at a spectacular rate, legislators in the Evergreen State approved a plan in 1988 to build five new branch campuses in the next 20 years, to be affiliated with the University of Washington or Washington State University.

More significantly, they also appropriated money—$46-million—to begin the planning and land acquisition for those campuses.

The campuses will be located in the pockets of population growth where few higher-education opportunities now exist, and in areas where some high-technology manufacturing plants are being closed for environmental-safety reasons and displaced workers need retraining.

The action by the legislators was viewed as a breakthrough by many college leaders. In recent years, many of them had become impatient with the state's unwillingness to put money behind its talk of improving the use of higher education in the diversification of the state's lumber- and aerospace-based economy.

The new campuses are expected to help extend higher education to working people and to other non-traditional students. Washington also has just approved a plan that will provide financial aid to part-time students.

Although the University of Washington ranks among the top 10 institutions in the country in the amount of federal money it receives for scientific and engineering research, and other public institutions enjoy solid reputations, four-year public universities are not the only important players on the higher-education scene.

The state has a network of 27 community colleges—each run by its own governing board but administered by the State Board for Community Colleges. It aiso has a large number of private institutions that are responsible for awarding about 25 per cent of the baccalaureate degrees every year.

The Higher Education Coordinating Board serves as the statewide body; each of the four-year public institutions has its own governing board.

Gov. Booth Gardner, a Democrat, has been active on education issues both at home and in national education groups and has been backed up by a business community that has become increasingly interested in education.

DEMOGRAPHICS

Population: 4,612,000 (Rank: 19)

Age distribution:

Up to 17	25.6%
18 to 24	10.5%
25 to 34	19.1%
35 and older	44.8%

Racial and ethnic distribution:

American Indian	1.5%
Asian	2.7%
Black	2.6%
White	91.7%
Other and unknown	1.5%
Hispanic (may be any race)	2.9%

Educational attainment of adults:

At least 4 years of high school	77.6%
At least 1 to 3 years of college	40.2%
At least 4 years of college	19.0%

Per-capita personal income: $16,473

New high-school graduates in:

1989-90 (estimate)	47,318
1999-2000 (estimate)	59,165

High-school dropout rate: 22.2%

POLITICAL LEADERSHIP

Governor: Booth Gardner (D), term ends 1993

Governor's higher-education adviser: Ronn Robinson, 100 Insurance Building, Mail Stop AQ44, Olympia 98504; (206) 753-5460

U.S. Senators: Brock Adams (D), term ends 1993; Slade Gorton (R), term ends 1995

U.S. Representatives:
5 Democrats, 3 Republicans
Rod Chandler (R), Norman D. Dicks (D), Thomas S. Foley (D), Jim McDermott (D), John Miller (R), Sid Morrison (R), Al Swift (D), Jolene Unsoeld (D)

Legislature: Senate, 24 Democrats, 25 Republicans; House, 64 Democrats, 34 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	6
Public 2-year institutions	27
Private 4-year institutions	19
Private 2-year institutions	2
Total	54

Vocational institutions: 166

Statewide coordinating board:
Higher Education Coordinating Board
917 Lakeridge Way, GV-11
Olympia 98504
(206) 753-3241
Ann Daley, executive director

Private-college association:
Washington Friends
of Higher Education
265 Westland Building
100 South King Street
Seattle 98104
(206) 624-9093
David M. Irwin, president

Institutions censured by the AAUP: None

Institution under NCAA sanctions: Eastern Washington University

FACULTY MEMBERS

Full-time faculty members:

At public institutions	5,471
At private institutions	1,185

Proportion with tenure:

At public institutions	76.5%
At private institutions	60.1%

Proportion who are women:

At public institutions	24.4%
At private institutions	27.7%

Average pay of full-time professors:

At public 4-year institutions	$37,295
At public 2-year institutions	$29,267
At private 4-year institutions	$30,289
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	77,722
At public 2-year institutions	136,485
At private 4-year institutions	30,258
At private 2-year institutions	1,407
Undergraduate	224,660
First-time freshmen	68,450
Graduate	18,158
Professional	3,054
Total	245,872

Enrollment highlights:

Women	54.7%
Full-time	57.5%
Minority	11.2%
Foreign	2.0%
10-year change in total enrollment	Down 6.5%

Degrees awarded:

Associate	12,278
Bachelor's	17,767
Master's	4,066
Doctorate	599
Professional	901

Residence of new students: State residents make up 89% of all new college students enrolled in Washington; 92% of all Washington residents who attend college do so in their home state

Proportion of all minority students who enroll at:

Public institutions	90.4%
Private institutions	9.6%
4-year institutions	41.5%
2-year institutions	58.5%

Proportion of students at largest public institutions who are minority-group members:

University of Washington	17.2%
Washington State University	7.1%

Proportion of students at largest private institutions who are minority-group members:

Seattle University	10.7%
University of Puget Sound	6.8%

Test scores: Students averaged 942 on the S.A.T., which was taken by 37% of Washington's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,339
At public 2-year institutions	$654
At private 4-year institutions	$6,837
At private 2-year institutions	n/a

Most expensive public institutions:
University of Washington and Washington State University, $1,827

Most expensive private institution:
Whitman College, $10,790

Expenditures:

Public institutions	$1,399,780,000
Private institutions	$227,211,000

State funds for higher-education operating expenses: $719,437,000

Two-year change: Up 14%

State spending on student aid:
Need-based: $12,902,000; 18,378 awards
Non–need-based: None
Other: $683,000

Salary of chief executive of largest public 4-year campus:
William P. Gerberding, University of Washington: $102,804 from state plus $41,172 from private donations (1989-90)

Total spending on research and development by doctorate-granting universities: $235,927,000

Sources:	
Federal government	70.5%
State and local governments	2.4%
Industry	9.0%
The institution itself	14.2%
Other	3.9%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$20,130,000
GI Bill	$29,337,000
Pell Grants	$69,141,000

Total federal spending on college-and-university-based research and development: $183,206,000

Selected programs:	
Department of Health and Human Services	$103,616,000
National Science Foundation	$27,033,000
Department of Defense	$24,566,000
Department of Agriculture	$7,463,000
Department of Energy	$6,997,000

Largest endowment:

Washington State University	$123,205,000

Top fund raisers:

University of Washington	$68,153,000
Washington State University	$20,879,000
Gonzaga University	$5,626,000

MISCELLANY

★ Taco Bell Corporation gave $250,000 to Washington State University last year to hire a "distinguished professor of fast-food service" and conduct research at the institution's hospitality-management program.

★ Governor Gardner has served as an administrator at two business schools. He was assistant to the dean of the Harvard Business School and director of the School of Business and Economics at the University of Puget Sound.

★ The oldest institution of higher education in Washington is Whitman College, founded in 1859.

West Virginia

A POLITICAL FIRESTORM hit West Virginia in 1989 in the form of a new Governor.

Gaston Caperton, a businessman and supposed political novice, took the reins of the troubled state in January and within four months reorganized its tax structure, its system of higher education, and its state bureaucracy. Using a report from the Carnegie Foundation for the Advancement of Teaching and his political clout, Governor Caperton won legislative approval to abolish the state Board of Regents, which had been variously described as a pawn of politicians and a pawn of college presidents.

It was replaced by two boards. One governs the new University of West Virginia System, which is to be made up of the state's research universities and professional schools. The other governs the state's two-year and four-year colleges. Supporters of the new system say it will allow state officials to make better use of their funds and to raise academic standards.

Fierce regionalism has hampered past efforts to revamp education in the Appalachian state, even though, by any measure, higher education in West Virginia is in terrible shape.

Budgets have been tight for years, athletics programs have been prone to scandal, faculty morale is low, and there have been three chancellors in three years.

The economics and history of the state explain the problems. For generations, the state's economy has been based on coal mining. As the industry declined, state revenues diminished and all elements of state government suffered.

But state officials hope that revitalizing West Virginia's higher-education system will eventually lead to a more diversified and healthy revenue base.

Continued on Following Page

Community College Week
Inside
House Passes Major Changes in Perkins
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West Virginia
CONTINUED

DEMOGRAPHICS

Population: 1,871,000 (Rank: 34)

Age distribution:

Up to 17	25.5%
18 to 24	10.8%
25 to 34	16.6%
35 and older	47.2%

Racial and ethnic distribution:

American Indian	0.1%
Asian	0.3%
Black	3.3%
White	96.2%
Other and unknown	0.1%
Hispanic (may be any race)	0.7%

Educational attainment of adults:

At least 4 years of high school	56.0%
At least 1 to 3 years of college	20.4%
At least 4 years of college	10.4%

Per-capita personal income: $11,735

New high-school graduates in:

1989-90 (estimate)	22,407
1999-2000 (estimate)	18,817

High-school dropout rate: 23.8%

POLITICAL LEADERSHIP

Governor: Gaston Caperton (D), term ends 1993

Governor's higher-education adviser: Steve E. Haid, 950 Kanawha Boulevard East, Charleston 25301; (304) 348-2177

U.S. Senators: Robert C. Byrd (D), term ends 1995; John D. Rockefeller, IV (D), term ends 1991

U.S. Representatives: 4 Democrats, 0 Republicans
Alan B. Mollohan (D), Nick Joe Rahall, II (D), Harley O. Staggers, Jr. (D), Robert E. Wise, Jr. (D)

Legislature: Senate, 30 Democrats, 4 Republicans; House, 79 Democrats, 21 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	12
Public 2-year institutions	4
Private 4-year institutions	9
Private 2-year institutions	4
Total	29

Vocational institutions: 59

Statewide coordinating boards:

University of West Virginia
Board of Trustees
950 Kanawha Boulevard East
Charleston 25301
(304) 348-2177
David Hardesty, president

Board of Directors for the
State College System
950 Kanawha Boulevard East
Charleston 25301
(304) 348-2177
Harley Mooney, president

Private-college association:

West Virginia Association
of Private Colleges
West Virginia Wesleyan College
59 College Avenue
Buckhannon 26201
(304) 473-8000
Thomas B. Courtice, president

Institutions censured by the AAUP:
None

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	2,47
At private institutions	43

Proportion with tenure:

At public institutions	62.3
At private institutions	52.5

Proportion who are women:

At public institutions	29.8
At private institutions	38.4

Average pay of full-time professors:

At public 4-year institutions	$29,82
At public 2-year institutions	$23,64
At private 4-year institutions	$24,02
At private 2-year institutions	$19,57

STUDENTS

Enrollment:

At public 4-year institutions	58,3
At public 2-year institutions	9,64
At private 4-year institutions	7,10
At private 2-year institutions	2,19
Undergraduate	67,4
First-time freshmen	15,56
Graduate	8,60
Professional	1,22
Total	77,25

Enrollment highlights:

Women	56.0
Full-time	64.6
Minority	5.0
Foreign	1.5
10-year change in total enrollment	Down 4.8

Degrees awarded:

Associate	2,56
Bachelor's	7,51
Master's	1,75
Doctorate	1
Professional	32

Residence of new students: State res dents make up 78% of all new colleg students enrolled in West Virginia; 85 of all West Virginia residents who a tend college do so in their home stat

Proportion of all minority students who enroll at:

Public institutions	86.3
Private institutions	13.7
4-year institutions	87.6
2-year institutions	12.4

Proportion of students at largest public institutions who are minority-group members:

West Virginia University	4.4
Marshall University	4.8

Proportion of students at largest private institutions who are minority-group members:

Beckley College	6.6
West Virginia Wesleyan College	4.0

Test scores: Students averaged 17.6 the A.C.T., which was taken by 51% West Virginia's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,0
At public 2-year institutions	$5
At private 4-year institutions	$6,1
At private 2-year institutions	$1,3

Most expensive public institution:
West Virginia University, $1,692

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The Chronicle of Philanthropy, P.O. Box 1989, Marion, Ohio 43305

Most expensive private institution: Bethany College: $9,972

Expenditures:

Public institutions	$376,293,000
Private institutions	$73,716,000

tate funds for higher-education perating expenses: $252,618,000
wo-year change: Up 4%

tate spending on student aid:
eed-based: $5,228,000; 5,700 awards
on–need-based: None
ther: $5,326,000

alary of chief executive f largest public 4-year campus:
eil S. Bucklew, West Virginia University: $97,108 (1989-90)

otal spending on research and evelopment by doctorate-granting niversities: $26,704,000

ources:

ederal government	48.7%
tate and local governments	3.3%
ndustry	3.3%
he institution itself	40.2%
ther	4.5%

ederal spending on education nd student aid (selected programs):

ocational and adult education	$16,762,000
I Bill	$3,885,000
ell Grants	$27,695,000

otal federal spending on college-and-niversity-based research and evelopment: $11,901,000

elected programs:

epartment of Health and Human Services	$5,628,000
ational Science Foundation	$496,000
epartment of Defense	$664,000
epartment of Agriculture	$2,592,000
epartment of Energy	$747,000

argest endowment:
ethany College $22,257,000

op fund raisers:

est Virginia University	$8,626,000
arshall University	$2,755,000
ethany College	$2,069,000

MISCELLANY

★ West Virginia colleges and uni-ersities have received many ma-r federal grants, frequently with e assistance of Sen. Robert C. yrd, a Democrat who has served s Senate Majority Leader and is hairman of the Appropriations ommittee.

★ The Personal Rapid Transit ystem—a driverless, computer-rected rail system that con-cts the West Virginia University mpus with downtown Morgan-wn—was set up by the Depart-ent of Transportation in 1979 as a ational research and demonstra-on project.

★ Congress has approved $37.5-million for construction of a new radio telescope in Green Bank to replace a 27-year-old instrument that collapsed unexpectedly in November 1988. The new structure is expected to cost $75-million; the original cost $850,000.

★ The oldest institutions of higher education in West Virginia are Marshall University and West Liberty State College, both founded in 1837.

Wisconsin

HIGHER EDUCATION in Wisconsin has a long tradition of outstanding programs, but is currently troubled.

Wisconsin residents have historically favored generous state support for the University of Wisconsin System. That support is most evident at the flagship campus at Madison, generally considered to be among the nation's top universities.

The decline of Wisconsin's agriculture and manufacturing industries, however, has made it difficult for the state to continue its record of financial support. Tight budgets have become the norm, and officials at the Madison campus say they need better facilities and more faculty members.

System officials have been promoting a variety of strategies to deal with the problems. They are trying to to limit costs while gaining more funds from the state and from tuition, and to persuade more students to spend their first two years of college at community colleges, which have excess space and are less expensive to run.

The state's colleges and universities have been debating racial issues for the past few years. Racial incidents and a scarcity of minority faculty members have prompted the system and many of its campuses to adopt ambitious plans to create campus climates where students of all backgrounds are made to feel welcome.

The system's Board of Regents serves as the coordinating and governing board for public higher education, with the exception of a vocational and technical system.

Private colleges in Wisconsin range from research institutions like Marquette University to liberal-arts colleges like Lawrence University and Concordia College. In recent years they have been pushing for expansion of a state financial-aid program in which their students can participate. Like the public institutions, they too have been trying to attract more minority students and faculty members.

Public and private colleges in the state have also both been fending off complaints of small-business owners about sales operations on campuses.

DEMOGRAPHICS

Population: 4,803,000 (Rank: 17)

Age distribution:

Up to 17	26.2%
18 to 24	10.9%
25 to 34	17.7%
35 and older	45.1%

Racial and ethnic distribution:

American Indian	0.7%
Asian	0.5%
Black	3.9%
White	94.5%
Other and unknown	0.5%
Hispanic (may be any race)	1.3%

Educational attainment of adults:

At least 4 years of high school	69.6%
At least 1 to 3 years of college	29.2%
At least 4 years of college	14.8%

Per-capita personal income: $15,524

New high-school graduates in:

1989-90 (estimate)	57,846
1999-2000 (estimate)	61,031

High-school dropout rate: 14.6%

POLITICAL LEADERSHIP

Governor: Tommy Thompson (R), term ends 1991

Governor's higher-education adviser: Tom Fonfara, State Capitol, P.O. Box 7863, Madison 53707; (608) 266-7424

U.S. Senators: Robert W. Kasten, Jr. (R), term ends 1993; Herbert Kohl (D), term ends 1995

U.S. Representatives:
5 Democrats, 4 Republicans
Les Aspin (D), Steve Gunderson (R), Robert W. Kastenmeier (D), Gerald D. Kleczka (D), Jim Moody (D), David R. Obey (D), Thomas E. Petri (R), F. James Sensenbrenner, Jr. (R), Toby Roth (R)

Legislature: Senate, 20 Democrats, 13 Republicans; Assembly, 56 Democrats, 43 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	13
Public 2-year institutions	18
Private 4-year institutions	30
Private 2-year institutions	3
Total	64

Vocational institutions: 129

Statewide coordinating board:
University of Wisconsin System
1720 Van Hise Hall
1220 Linden Drive
Madison 53706
(608) 262-2321
Kenneth A. Shaw, president

Private-college association:
Wisconsin Association of Independent Colleges and Universities
121 East Wilson Street
Madison 53703
(608) 256-7761
Robert E. McCarthy, president

Institution censured by the AAUP: Marquette University

Institutions under NCAA sanctions: None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	8,347
At private institutions	1,570

Proportion with tenure:

At public institutions	74.3%
At private institutions	52.3%

Proportion who are women:

At public institutions	25.9%
At private institutions	27.8%

Average pay of full-time professors:

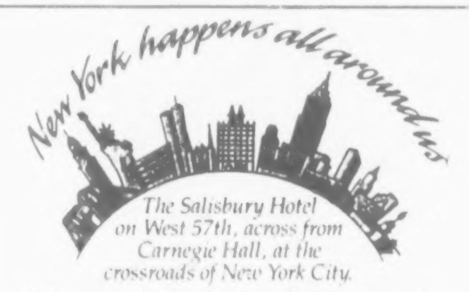
At public 4-year institutions	$37,780
At public 2-year institutions	$32,506
At private 4-year institutions	$31,241
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	151,329
At public 2-year institutions	89,204

Continued on Following Page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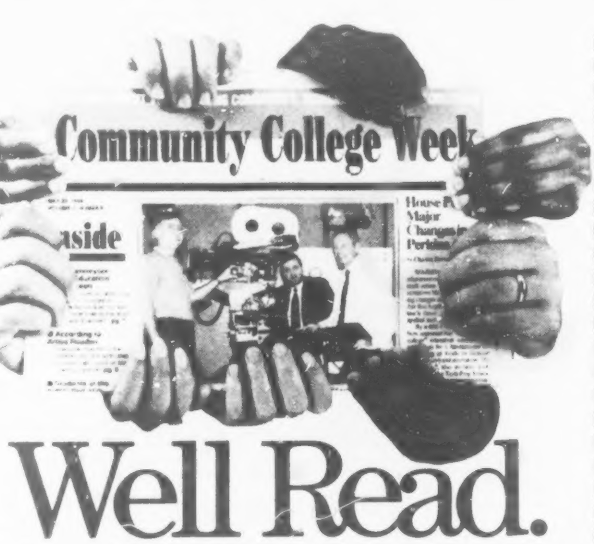

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Wisconsin

CONTINUED

At private 4-year institutions	39,621
At private 2-year institutions	1,563
Undergraduate	251,259
First-time freshmen	51,357
Graduate	26,752
Professional	3,706
Total	281,717

Enrollment highlights:

Women	53.1%
Full-time	65.6%
Minority	6.5%
Foreign	1.9%
10-year change in total enrollment	Up 15.5%

Degrees awarded:

Associate	8,723
Bachelor's	25,322
Master's	5,393
Doctorate	795
Professional	1,030

Residence of new students: State residents make up 86% of all new college students enrolled in Wisconsin; 88% of all Wisconsin residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	82.6%
Private institutions	17.4%
4-year institutions	55.2%
2-year institutions	44.8%

Proportion of students at largest public institutions who are minority-group members:

University of Wisconsin at Madison	5.1%
University of Wisconsin at Milwaukee	9.8%

Proportion of students at largest private institutions who are minority-group members:

Marquette University	10.8%
Milwaukee School of Engineering	6.5%

Test scores: Students averaged 20.2 on the A.C.T., which was taken by 50% of Wisconsin's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$1,271
At public 2-year institutions	$887
At private 4-year institutions	$6,055
At private 2-year institutions	n/a

Most expensive public institution: University of Wisconsin at Milwaukee, $2,053

Most expensive private institution: Lawrence University, $12,615

Expenditures:

Public institutions	$1,754,395,000
Private institutions	$373,533,000

State funds for higher-education operating expenses: $738,670,000

Two-year change: Up 11%

State spending on student aid:
Need-based: $36,219,000; 49,860 awards
Non–need-based: None
Other: $1,842,000

Salary of chief executive of largest public 4-year campus: Donna E. Shalala, University of Wisconsin at Madison: $97,398 (1988-89)

Total spending on research and development by doctorate-granting universities: $303,188,000

Sources:

Federal government	56.6%
State and local governments	16.4%
Industry	4.0%
The institution itself	14.9%
Other	8.1%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$30,277,000
GI Bill	$12,200,000
Pell Grants	$80,261,000

Total federal spending on college-and-university-based research and development: $160,074,000

Selected programs:

Department of Health and Human Services	$92,754,000
National Science Foundation	$22,441,000
Department of Defense	$6,177,000
Department of Agriculture	$9,051,000
Department of Energy	$12,665,000

Largest endowment:

University of Wisconsin Foundation	$109,092,000

Top fund raisers:

University of Wisconsin at Madison	$89,077,000
Marquette University	$12,534,000
Medical College of Wisconsin	$8,572,000

MISCELLANY

★ Alverno College is a pioneer in the effort to assess student learning and institutional effectiveness. To graduate, students at the Roman Catholic women's college must prove they are competent in eight "abilities": communication, analysis, problem solving, valuing, social interaction, taking responsibility for the global environment, effective citizenship, and aesthetic response.

★ The health-services office at the University of Wisconsin's Eau Claire campus has started a program called Straight Talk About Safer Sex, which provides videotapes, psychological counseling, and classroom lectures to help students understand sexually transmitted diseases.

★ Grilling hamburgers and french-frying potatoes are among the tasks for undergraduates at the Burger King Fast Food Laboratory, a training facility for students in the hotel and restaurant management program at the University of Wisconsin–Stout.

★ The oldest institution of higher education in Wisconsin is Nashotah House, an Episcopal seminary founded in 1842.

Wyoming

THREE DAYS a week, a squad of professors from the University of Wyoming boards a university airplane to bring higher education to the hinterlands.

Their nickname—the Flying Professors—is apt, for it suggests the kinds of academic acrobatics the state's only university is called upon to perform to satisfy the diverse educational needs of citizens who live in the 98,000 square miles of the nation's most sparsely populated state.

Besides the outreach program, for example, the university provides family medical care.

Meeting such demands has been part of the tradition of the university since its founding in Laramie in 1886, when Wyoming was still a territory.

In recent years, however, as the state's energy-based economy has sagged, satisfying those demands has been a struggle. Although Wyoming ranks third in per-capita spending on higher education, university officials worry about low salaries for faculty members and small budgets for support programs and day-to-day operations.

The university is governed by a Board of Trustees whose members enjoy much latitude in their control of the institution.

Wyoming is the only state with no private, non-profit colleges. It does have seven community colleges, all founded after World War II. The Wyoming Community College Commission is the coordinating board for those institutions. There is not a coordinating board for all levels of higher education.

DEMOGRAPHICS

Population: 503,000 (Rank: 51)

Age distribution:

Up to 17	29.4%
18 to 24	10.6%
25 to 34	21.7%
35 and older	38.2%

Racial and ethnic distribution:

American Indian	1.8%
Asian	0.4%
Black	0.7%
White	95.1%
Other and unknown	2.0%
Hispanic (may be any race)	5.2%

Educational attainment of adults:

At least 4 years of high school	77.9%
At least 1 to 3 years of college	37.9%
At least 4 years of college	17.2%

Per-capita personal income: $13,609

New high-school graduates in:

1989-90 (estimate)	5,987
1999-2000 (estimate)	5,988

High-school dropout rate: 10.7%

POLITICAL LEADERSHIP

Governor: Michael Sullivan (D), term ends 1991

Governor's higher-education adviser: Ernie Mecca, State Capitol, Cheyenne 82002; (307) 777-7929

U.S. Senators: Alan K. Simpson (R), term ends 1991; Malcolm Wallop (R), term ends 1995

U.S. Representative:
1 Republican
Craig Thomas (R)

Legislature: Senate, 11 Democrats, 19 Republicans; House, 23 Democrats, 41 Republicans

COLLEGES AND UNIVERSITIES

Higher education:

Public 4-year institutions	1
Public 2-year institutions	7
Private 4-year institutions	0
Private 2-year institutions	1
Total	9

Vocational institutions: 14

Statewide coordinating boards:

University of Wyoming
Box 3434, University Station
Laramie 82071
(307) 766-4121
Terry P. Roark, president

Wyoming Community College Commission
122 West 25th
Herschler Building, 2nd West
Cheyenne 82002
(307) 777-7763
Helen M. Kitchens, interim executive director

Private-college association: None

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Institutions censured by the AAUP:
None

Institutions under NCAA sanctions:
None

FACULTY MEMBERS

Full-time faculty members:

At public institutions	1,055
At private institutions	n/a

Proportion with tenure:

At public institutions	68.8%
At private institutions	n/a

Proportion who are women:

At public institutions	24.3%
At private institutions	n/a

Average pay of full-time professors:

At public 4-year institutions	$37,053
At public 2-year institutions	$27,889
At private 4-year institutions	n/a
At private 2-year institutions	n/a

STUDENTS

Enrollment:

At public 4-year institutions	10,401
At public 2-year institutions	15,040
At private 4-year institutions	0
At private 2-year institutions	621
Undergraduate	24,149
First-time freshmen	5,837
Graduate	1,707
Professional	206
Total	26,062

Enrollment highlights:

Women	54.0%
Full-time	57.9%
Minority	5.0%
Foreign	1.9%
10-year change in total enrollment	Up 32.1%

Degrees awarded:

Associate	1,309
Bachelor's	1,625
Master's	345
Doctorate	68
Professional	59

Residence of new students: State residents make up 85% of all new college students enrolled in Wyoming; 76% of all Wyoming residents who attend college do so in their home state.

Proportion of all minority students who enroll at:

Public institutions	97.2%
Private institutions	2.8%
4-year institutions	29.2%
2-year institutions	70.8%

Proportion of students at largest public institutions who are minority-group members:

University of Wyoming	3.4%
Laramie County Community College	7.6%

Proportion of students at only private institution who are minority-group members:

Wyoming Technical Institute	5.3%

Test scores: Students averaged 19.5 on the A.C.T., which was taken by 61% of Wyoming's high-school seniors.

MONEY

Average tuition and fees:

At public 4-year institutions	$778
At public 2-year institutions	$516
At private 4-year institutions	n/a
At private 2-year institutions	n/a

Most expensive public institution:
University of Wyoming, $1,003

Most expensive private institution:
Wyoming Technical Institute, $6,700

Expenditures:

Public institutions	$203,307,000
Private institutions	n/a

State funds for higher-education operating expense: $114,188,000

Two-year change: Up 2%

State spending on student aid:
Need-based: $250,000; 400 awards
Non-need-based: None
Other: None

Salary of chief executive of largest public 4-year campus:
Terry P. Roark, University of Wyoming: $105,552 (1989-90)

Total spending on research and development by doctorate-granting universities: $17,316,900

Sources:

Federal government	50.2%
State and local governments	6.5%
Industry	7.0%
The institution itself	35.7%
Other	0.5%

Federal spending on education and student aid (selected programs):

Vocational and adult education	$2,979,000
GI Bill	$2,192,000
Pell Grants	$9,494,000

Total federal spending on college-and-university-based research and development: $9,444,000

Selected programs:

Department of Health and Human Services	$885,000
National Science Foundation	$3,272,000
Department of Defense	$1,092,000
Department of Agriculture	$1,712,000
Department of Energy	$620,000

Largest endowment:

University of Wyoming	$50,429,000

Top fund raiser:

University of Wyoming	$5,051,000

MISCELLANY

★ The University of Wyoming's athletics director and head football coach, Paul Roach, turned down a salary increase in March 1989 that would have raised his salary above that of the university's president, Terry P. Roark. A university trustee had resigned from the board to protest the trustees' decision to grant Mr. Roach the increase.

★ Faculty members at the University of Wyoming are studying many aspects of the 1988 wildfires in Yellowstone National Park. The studies cover the causes of the fires, strategies for preventing future fires, and the effects of the fires on the area's ecology.

★ At an altitude of 7,200 feet above sea level, the University of Wyoming claims to be the highest university in the nation.

★ The oldest institution of higher education in the state is the University of Wyoming, founded in 1886.

The Chronicle of Higher Education

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SOURCES & NOTES

The statistics in this Almanac are meant to provide a broad view of higher education in the 50 states and the District of Columbia.

The figures are comparable from state to state, and, in all cases, they were the latest available at press time.

The time covered by the statistics varies from item to item. For example, the racial and ethnic distribution of the adult population of the states is gathered from the decennial census; hence, the latest information is from 1980. The U.S. Department of Education typically releases statistics from its annual surveys of colleges and universities one to two years after collecting the data. As a consequence, the latest figures on enrollments, for example, cover Fall 1987.

On some topics, the federal government does not collect statistics annually. The most up-to-date figures on the number of students who are minority-group members cover Fall 1986. That survey is conducted every two years, and the 1988 data have not yet been released.

Many data that would be useful to educators and policymakers are not available for every state. For example, the Education Department has no state-by-state information on the number of part-time faculty members. Nor does the department collect information to show, on a comparable basis across the states, the proportion of high-school students who go on to college, or the proportion of college students who complete their degrees. Some states do collect such information, but those figures are not included in this Almanac because they would not always be comparable.

Because of rounding, figures may not add to 100 per cent. The designation "n/a" indicates that data are not available or not applicable. In some instances, U.S. totals may include data on service schools and outlying areas that are not shown separately.

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DEMOGRAPHICS

Population:
SOURCE: Census Bureau
DATE: estimate of total population as of July 1, 1989

Age distribution:
SOURCE: Census Bureau
DATE: estimate of resident population as of July 1, 1988

Racial and ethnic distribution:
SOURCE: Census Bureau
DATE: 1980

Educational attainment of adults:
SOURCE: Census Bureau
DATE: 1980
NOTE: Figures cover adults 25 years and older.

Per-capita personal income:
SOURCE: U.S. Department of Commerce
DATE: 1988

New high-school graduates:
SOURCE: Western Interstate Commission for Higher Education
NOTE: Projections of graduates in 1989-90 and 1990-2000 were made in May 1988.

High-school dropout rate:
SOURCE: U.S. Department of Education
DATE: 1987
NOTE: The figures cover public schools only and are calculated by dividing the number of high-school graduates by the ninth-grade enrollment four years earlier. They are adjusted for interstate migration.

POLITICAL LEADERSHIP

Governor:
SOURCE: National Governors' Association

Governor's higher-education adviser:
SOURCES: Education Commission of the States; *Chronicle of Higher Education* reporting

U.S. Senators:
SOURCE: Secretary of the Senate

U.S. Representatives:
SOURCE: Clerk of the House of Representatives

Legislature:
SOURCE: National Conference of State Legislatures
NOTE: Figures represent the strength of legislatures as of November 1988.

COLLEGES AND UNIVERSITIES

Higher education:
SOURCE: U.S. Department of Education
DATE: 1987-88

Vocational institutions:
SOURCE: U.S. Department of Education
DATE: 1987-88
NOTE: Figure includes public, non-profit, and for-profit non-collegiate institutions that offer postsecondary education.

Statewide coordinating board:
SOURCES: State Higher Education Executive Officers; *Chronicle of Higher Education* reporting

Private-college association:
SOURCE: National Association of Independent Colleges and Universities

Institutions censured by the AAUP:
SOURCE: American Association of University Professors
DATE: Action as of June 1989
NOTE: The A.A.U.P. censures institutions when it finds that they have violated its standards of academic freedom and tenure. The standards seek to protect the rights of faculty members to free speech without fear of penalty, and to due process in appointment, promotion, and tenure decisions. The standards are included in the 1940 Statement of Principles of Academic Freedom and Tenure, which was developed by the A.A.U.P. and the Association of American Colleges and endorsed by more than 100 other academic organizations. Censure was imposed on administrative officers at all institutions listed except for those noted.

Institutions under NCAA sanctions:
SOURCE: National Collegiate Athletic Association
DATE: Action as of August 1989

FACULTY MEMBERS

Full-time faculty members; proportion with tenure; and proportion who are women:
SOURCE: U.S. Department of Education
DATE: 1985-86
NOTE: Figures cover faculty members on 9-month and 12-month contracts. The tenure statistics are based on only those institutions that have a system of tenure, and therefore exclude many two-year institutions.

Average pay of full-time professors:
SOURCE: U.S. Department of Education
DATE: 1987-88
NOTE: Figures cover faculty members on 9-month contracts only.

STUDENTS

Enrollment:
SOURCE: U.S. Department of Education
DATE: Fall 1987
NOTE: Undergraduate enrollment includes first-time freshman enrollment, which is also shown separately.

Enollment highlights:
SOURCE: U.S. Department of Education
NOTE: Figures on the proportion of students who are women and the proportion who are enrolled full-time cover Fall 1987; figures on the proportion who are minority-group members and those who are foreign students cover Fall 1986. The change in enrollment covers 1977 to 1987. All proportions are based on total enrollment with one exception: The proportion of students who are minority-group members covers only U.S. citizens.

Degrees awarded:
SOURCE: U.S. Department of Education
DATE: 1986-87

Residence of new students:
SOURCE: U.S. Department of Education
DATE: Fall 1986

Proportion of minority students who enroll at public and private institutions; at 4-year and 2-year institutions:
SOURCE: U.S. Department of Education
DATE: Fall 1986

Proportion of students at largest public and private institutions who are minority-group members:
SOURCE: U.S. Department of Education
DATE: Fall 1986

Test scores:
SOURCE: U.S. Department of Education
DATE: 1988
NOTE: The A.C.T.—American College Testing Program's A.C.T. Assessment—is scored on a scale from 1 to 36. The S.A.T.—the College Board's Scholastic Aptitude Test—is scored on a scale from 400 to 1,600. For each state, one score is given, depending on which test was taken by the larger number of students.

MONEY

Average tuition and fees:
SOURCE: U.S. Department of Education
DATE: 1986-87
NOTE: Figures are weighted by full-time-equivalent enrollment.

Most expensive public institution:
SOURCES: *Chronicle of Higher Education* reporting; College Board
DATE: 1989-90
NOTE: Figures represent tuition and fees charged to undergraduates.

Most expensive private institution:
SOURCE: *Chronicle of Higher Education* ranking based on a survey of charges at private colleges conducted by the College Board in June 1989
DATE: 1989-90
NOTE: Figures represent tuition and fees charged to undergraduates.

Expenditures:
SOURCE: U.S. Department of Education
DATE: 1985-86

State funds for higher-education operating expenses:
SOURCE: Edward R. Hines, Illinois State University
DATE: 1988-89
NOTE: Figures include state tax funds appropriated for colleges and universities, for student aid, and for governing and coordinating boards. They do not include funds for capital outlays and money from sources other than state taxes, such as student fees.

State spending on student aid:
SOURCE: National Association of State Scholarship and Grant Programs
DATE: 1988-89
NOTE: "Need-based" aid covers scholarships awarded on the basis of a student's financial situation. "Non-need-based" aid includes scholarships given to reward meritorious students, to encourage students to major in particular disciplines, and to reduce the difference in tuition costs between public and private institutions. The category of "other" aid includes spending for work-study, loan-forgiveness, and loan programs. The figures include most of the money that states spend on student aid. However, some states may spend more on programs that are not specifically identified as student-aid programs.

Salary of chief executive of largest public 4-year campus:
SOURCE: *Chronicle of Higher Education* reporting
DATE: 1988-89 or 1989-90, as indicated
NOTE: Institutions were selected on the basis of Fall 1987 enrollment as reported by the U.S. Department of Education.

Total spending on research and development by doctorate-granting universities:
SOURCE: National Science Foundation
DATE: Fiscal year 1987
NOTE: Figures cover spending in science and engineering.

Federal spending on education and student aid (selected programs):
SOURCE: Census Bureau
DATE: Fiscal year 1988

Total federal spending on college- and university-based research and development:
SOURCE: National Science Foundation
DATE: Fiscal 1987
NOTE: Figures cover federal obligations, which are funds set aside for payments. Institutions do not always receive them in the year in which they were obligated. Figures cover spending in science and engineering.

Largest endowment:
SOURCES: National Association of College and University Business Officers; *Chronicle of Higher Education* reporting
DATE: As of June 30, 1988

Top fund raisers:
SOURCE: Council for Aid to Education
DATE: 1987-88
NOTE: Figures are based on a survey of 1,140 institutions, which together received about 85 per cent of all private contributions to colleges and universities. Rankings of institutions may be heavily influenced by the timing of fund drives, unusually large gifts, and other factors.

MISCELLANY

SOURCE: *Chronicle of Higher Education* reporting
NOTE: Among the reference books that provided useful information were *The American College and University: A History*, by Frederick Rudolph, and a number of university histories.

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of Higher Education®

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News Summary

This issue of *The Chronicle* is accompanied by a 96-page compendium of facts about higher education in the 50 states and the District of Columbia

Articles on inside pages

The new president of the U. of Maryland at Baltimore and the head of the system's Board of Regents resigned after a dispute: Page A15.

The Supreme Court blocked a desegregation plan to reorganize higher education in Louisiana: Page A20.

Financial aid to students was 8.3 per cent higher in academic 1988-89 than in academic 1987-88: Page A29.

A six-month investigation has led the U. of North Carolina system's Board of Governors to adopt a package of sports reforms: Page A32.

A new version of Mao's Cultural Revolution is sweeping across China's campuses: Page A35.

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Opinion & Letters	B1-7

Ruling Clears Way for Major Changes in College Pensions

SEC approves settlement of fight between TIAA-CREF and critics

WASHINGTON

The Securities and Exchange Commission has given final approval to a settlement between higher education's largest pension companies and a group of critics that had been pressing them to give policyholders more control over their retirement accumulations.

The S.E.C. action cleared the way for major changes that would give the companies' policyholders far more flexibility in the handling of their money, make the college pension environment more competitive than ever before, and force institutions to think more carefully about the goals of their pension plans.

The action also meant that the $76-billion companies, the Teachers Insurance and Annuity Association and the College Retirement Equities Fund, could avoid a long and bitter hearing process that almost certainly would have taken place had there been no settlement.

2 New Funds Planned

After the S.E.C. approved the agreement last month, TIAA-CREF announced it would offer policyholders two new investment funds in the first quarter of 1990. In 1987, a special TIAA-CREF panel recommended that the companies offer more options.

At present, policyholders may invest in TIAA, a fixed-income fund, or CREF, which has a stock fund and a money-market fund. The agreement approved by the S.E.C. applies only to CREF. It is expected to take effect in six months.

The companies and their critics also signed a separate agreement that will apply to retirement holdings in TIAA. The changes called for in that agreement, which does not require S.E.C. approval, are expected to take effect in about two years.

Clifton R. Wharton, Jr., TIAA-CREF's

Continued on Page A16

PUBLISHER CALLED PRO-NAZI

An Embarrassed Historian Seeks to Halt Distribution of German Edition of Book

By CAROLYN J. MOONEY

Francis R. Nicosia admits he knew little about academic publishing when he signed a contract in 1984 for his first scholarly book, *The Third Reich and the Palestine Question*.

The history professor at Saint Michael's College considers himself far wiser now. In recent months, Mr. Nicosia has embarked on a personal campaign to distance himself from a German translation of his book, which was published by a German company that he and other scholars maintain is an apologist for Germany's Nazi era.

"It's professionally embarrassing," Mr. Nicosia said. "People who don't know the story are going to think I approve of the political agenda of the publisher. I can't even list the translation on my curriculum vitae."

Mr. Nicosia was upset that his original publisher, the University of Texas Press, did not notify him when it first learned of the German publisher's interest early in 1988, and that it continued to deal with the German company after he expressed his concern. He now wants the Texas press to force the German publisher, Druffel Verlag, to stop circulating and promoting the book. More than a dozen scholars and Jewish organizations have written sharply worded letters to the Texas press urging

Continued on Page A19

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Francis R. Nicosia: "People who don't know the story are going to think I approve of the political agenda of the publisher."

Gifts to Colleges Appear to Be on the Way Up, After First Decline in More Than 10 Years

By LIZ McMILLEN

Giving to higher education appears to have bounced back after suffering its first year of decline in more than a decade.

As colleges and universities counted their final receipts this summer, several reported that they had raised more money in 1988-89 than they had the previous year, when overall contributions to higher education went down by 3.5 per cent. Some observers believed that changes in the tax law, as well as the crash on Wall Street, had been responsible for the drop.

Although the effects of those economic factors are still being felt, the worst fears—that charitable giving to colleges would be jeopardized—seem to have eased. Many fund raisers say their efforts have regained the momentum established before the decline.

"It's pretty much back to normal," said G. David Gearhart, senior vice-president for development and university relations at Pennsylvania State University.

Topping the $100-Million Mark

At many colleges, contributions are up in nearly all categories—including alumni gifts, corporate and foundation grants, and planned giving. Several colleges recorded sizable increases in overall giving, ranging from 15 per cent to more than 50 per cent, and a few went over the $100-million-mark for the first time. Some examples:

- The College of William and Mary, in a $150-million capital campaign, received a

Continued on Page A27

A rebounding stock market brought strong returns for college and university endowments in 1988-89: Page A25.

2 National Fraternities Plan to Eliminate Pledging in Campaign Against Alcohol Abuse and Hazing

By MICHELE N-K COLLISON

In efforts to stop alcohol abuse and violence by their members, two national fraternities have announced they will eliminate pledging, and the nation's largest fraternity association has embarked on an aggressive public-relations campaign to discourage hazing.

Zeta Beta Tau and Tau Kappa Epsilon, the nation's largest fraternity, became the first to eliminate pledging, which has been used to initiate new members into fraternities since the 1920's.

Traditionally, the pledge period—the time between a student's being asked to join a fraternity and his initiation as a member—lasts from six to eight weeks. Many fraternity chapters subject their pledges to hazing during that time, with some requiring students to drink large amounts of alcoholic beverages or to endure beatings by fraternity members.

Under the new system devised by the two fraternities, students will become

Continued on Page A30

A Public-Relations Dream for Space Scientists

Researchers say the spectacularly successful tour of Neptune by *Voyager 2* should boost support for further planetary missions: Page A4.

MARGINALIA

A directory of "administrative support services" at the University of Illinois at Chicago lists, under Laundry Services, the "Flat and Fluff Division."

■

Memorandum circulated in the University of Oklahoma system:

"Several campus departments have informed the General Services Department that they have surplus property available. Any department wishing to obtain any of these items should contact the person named below. . . .

"Anatomical Sciences: Cliff Wallace

"1 K.H. Dryer 1217
"1 Chromatography Oven
"1 Abe-Sonic-Cleaner
"1 Accessories
"1 Slide Cabinet . . .
"2 Technicians
"5 Blackboards 6' x 3'
"1 Blackboards 9' x 4' "

We could use both of those technicians if they haven't been spoken for.

■

The description of Session WO1 at a workshop of the American Association of Physics Teachers laid down this stiff prerequisite:

"Some experience on the Macintosh is required but not necessary."

■

A reader at Harvard spotted this sign on the door of the University Central Copy Service:

DUE TO MACHINE MALEFUNCTIONS,
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CLOSED AT 8:00 P.M.

Sexism!

■

From the preface to the second edition of *Universe*, an introductory astronomy textbook:

"Although we have made a valient effort to make this an error-free edition, some mistakes may have crept in."

Perish the thought!

■

Offering in a bulletin on scholarship opportunities at Florida International University:

"S.G.A. CHEN-SHUE MEMORIAL SCHOLARSHIP (U)—Full-Time Hispanic, Oriental, or Black student working toward resenting his / her culture to the University Community or enhancing the University experience of his / her peers. (Supporting statement must be included.)"

A statement that's full of bitterness and ill will?

■

We're late in reporting this, but according to the 1986-87 edition of *Accredited Institutions of Postsecondary Education*, the Ohio College of Barber Styling offers "courses of varying lengths." —C.G.

In Brief

Judge Strikes Down Michigan Anti-Bias Plan

ANN ARBOR, MICH.—A federal judge here has struck down a University of Michigan policy aimed at barring discrimination or harassment of students on the campus. The decision could affect a handful of other colleges that have proposed or adopted similar policies.

U.S. District Judge Avern Cohn ruled that the Michigan policy—which took effect last year—violated the First Amendment. He said the policy was so overly broad and vague that "persons of common intelligence must guess at its meaning."

The policy prohibited discrimination and harassment on the basis of "race, ethnicity, religion, origin, sex, sexual orientation, creed, national origin, ancestry, age, marital status, handicap, or Vietnam-era-veteran status." It also laid out guidelines to determine the campus settings in which such behavior constituted a violation of the policy.

The Michigan chapter of the American Civil Liberties Union challenged the constitutionality of the policy. A lawyer for the university said officials had not yet decided whether to appeal the decision or revise the policy.

Members of the A.C.L.U. in Wisconsin have said they may challenge a similar policy that was to take effect at the University of Wisconsin last week.

What They're Reading on College Campuses

		Previous Survey
1.	**Yukon Ho!** by Bill Watterson	1
2.	**Wildlife Preserves,** by Gary Larson	5
3.	**Chaos,** by James Gleick	7
4.	**The Cardinal of the Kremlin,** by Tom Clancy	—
5.	**The Mummy,** by Anne Rice	4
6.	**Codependent No More,** by Melody Beattie	—
7.	**The Dark Tower: The Gunslinger,** by Stephen King	—
8.	**The Silence of the Lambs,** by Thomas Harris	—
9.	**The Dance of Anger,** by Harriet Goldhor Lerner	—
10.	**Zoya,** by Danielle Steel	—

The Chronicle's list of best-selling books was compiled from information supplied by stores serving the following campuses: American U., Baylor U., Bucknell U., Carleton College, Carnegie Mellon U., Case Western Reserve U., Central Michigan U., Dartmouth College, Idaho State U., Indiana U., Kent State U., Lawrence U., Lehigh U., Mankato State U., Montana State U., New York U., Pennsylvania State U., Portland State U., Princeton U., San Francisco State U., Stanford U., Syracuse U., Tarrant County Junior College, Tulane U., U. of California at San Diego, U. of Hawaii, U. of Iowa, U. of Maryland–Baltimore County, U. of Missouri at Columbia, U. of Nebraska at Lincoln, U. of New Orleans, U. of Notre Dame, U. of Pittsburgh, U. of Puget Sound, U. of Washington, U. of Wisconsin at Madison, Vanderbilt U., and Xavier U. (Ohio). Reports covered sales of hardcover and paperback trade books in July.

Vandals Paint Racial Slurs on Rutgers Jewish Center

NEW BRUNSWICK, N.J.—Three members of a white-supremacist group here have been arrested and charged with spray-painting a Rutgers University Jewish student center with swastikas and racial slurs.

The action marked the second time in as many years that the facility—the B'nai B'rith Hillel Foundation Center—had been vandalized by members of youth gangs known as "skinheads," Rutgers officials said.

The three suspects—none of whom is affiliated with Rutgers—have been charged with, among other things, desecrating a venerated object, damaging property, and criminal mischief.

If all three are tried as adults, the charges carry a maximum penalty of eight-and-a-half years in prison and a $22,500 fine. One of the suspects is a minor, but the Middlesex County prosecutor said he would seek to have the youth tried as an adult.

Campus Police Officer Kills Man During Arrest

KALAMAZOO, MICH.—Western Michigan University last week dismissed a campus police officer who shot and killed a man while on duty.

The dismissal followed a university investigation of the shooting, but officials would not disclose their findings. The Michigan Attorney General has begun a separate investigation.

The shooting victim, Jonathan B. Richey, was killed when the officer's gun discharged during an arrest, university officials said. Mr. Richey was not associated with Western Michigan.

The incident began when police stopped to investigate Mr. Richey's car, which was parked on a road that divides the campus. Mr. Richey allegedly assaulted one officer, took the officer's gun, shot out a tire of the police car, and left the scene in his own car. He was shot when he was stopped later by two other officers.

Medical Enrollment Up, Applications Down

CHICAGO—Despite a continued decline in the number of applications, freshman enrollment in U.S. medical schools rose in the last academic year for the first time since 1981.

Combined, the schools accepted 64 per cent of those who applied, or one in every 1.6 applicants, according to a report by the American Medical Association.

The association found a 121-per-cent increase in the number of women from the Far East and the Pacific Islands entering medical school over the past five years, and a 103.6-per-cent increase among their male counterparts.

In the same five-year period, the number of white males starting medical school dropped 12.5 per cent, while the number of white women declined slightly.

The report, published in the *Journal of the American Medical Association*'s August 25 issue, shows increases of 2.7 per cent and 24.5 per cent in the number of black males and black females entering medical school.

In the last academic year, there were 16,781 first-year students in medical schools, an increase of 95 over the previous year. However, total enrollment decreased by 592, and there were 241 fewer graduates than in the year before.

U. of Mass. Files Appeal of Open-Meeting Ruling

AMHERST, MASS.—The University of Massachusetts has appealed a court ruling that would require opening to the public the meetings of animal-research committees.

A lawsuit filed by the New England Anti-Vivisection Society sought to open meetings of the committees at the university's Amherst campus and medical school in Worcester. A Suffolk County Superior Court judge ruled in July that the research committees were subject to the state's open-meeting law and that their meetings must be public.

The committees, among other

Fall College Enrollment Expected to Top 13 Million

WASHINGTON

College enrollment is expected to top 13 million for the first time ever, according to the U.S. Department of Education.

Despite the decline in the number of high-school graduates, the department predicted that college enrollment will climb 1.9 per cent this fall to an estimated 13,087,000. The gain is due to an increase in the college-going rate among students of both traditional and non-traditional college age, the department said in its annual "Back to School Forecast."

Public institutions are expected to enroll about 10,188,000 students, while enrollment at private institutions will reach 2,899,000. The proportion of students attending each type of institution has been virtually unchanged throughout the 1980's, with about 78 per cent at public colleges and 22 per cent at private ones.

In its five-year enrollment forecast, the department estimated that college attendance would grow slowly through 1991, peaking at 13,233,000. It will then dip to 13,026,000 by 1993.

The number of bachelor's degrees awarded in 1989-90 will surpass one million for the first time, rising 1.2 per cent to a record high of 1,006,000, according to the department. In addition, colleges are expected to award 448,000 associate degrees, 301,000 master's degrees, 34,000 doctoral degrees, and 72,000 professional degrees.

Spending Up 7.2 Pct.

College expenditures are projected to increase 7.2 per cent this year to an all-time high of $140.9-billion. Public institutions will spend some $91.9-billion, while private institutions will spend $49-billion. Spending for each full-time-equivalent student will climb to $12,986 at public institutions and $20,724 at private ones.

According to the department's projections, colleges are expected to employ about 755,000 full- and part-time faculty members in 1989-90, 1.9 per cent more than last year. Public institutions will employ 534,000 professors, while private institutions will employ 221,000.

Taking all levels of education into account, the department estimated that total education spending would rise 6.8 per cent to $353-billion in 1989-90.

Despite that record spending, education is in a state of "crisis," according to Secretary of Education Lauro F. Cavazos. "Our nation continues to make a tremendous financial investment in education, but the education deficit continues to grow," he said in a statement accompanying the department's forecast. "Too many Americans remain ill prepared for a changing world."

—JEAN EVANGELAUF

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Note Book

Tips on what students should bring to college and how they should study and manage their money once they get there are among the topics covered in an orientation booklet that Loyola University of Chic[illegible]s published for fresh[illegible]s fall.

The booklet, [illegible]e *Freshman Year,* [illegible]y Loyola sophomore[illegible]ar's freshman class. It sugge[illegible]at kinds of things students should bring to college (an alarm clock, extension cord, hangers, rain-proof clothing); how they can get along with their roommates (by being considerate and learning to compromise); and how to avoid gaining the "freshman 10" (by filling up on fruits and vegetables and by exercising).

The pamphlet also advises students to work during the summer and put their money into a checking account in a bank near the campus.

It contains a few suggestions on academics. One student wrote that freshmen should get the telephone numbers of other students in their classes so that, if the freshmen miss a class, they can call the other students and borrow their notes. Another student had a more simple message: "Study!" she wrote.

■

The University of Dayton has offered tips on clothes laundering as part of its orientation handbook for freshmen this year.

L. B. Fred, the university's director of special programs, added the advice because, he said, many students come to college having never done their own laundry.

"It's hard to believe that with all the TV commercials telling you how to keep your clothes sparkling clean, there are many people who get to college not knowing how to do the wash," said Mr. Fred.

Mr. Fred's laundry tips are simple. They include: "If in doubt, wash cold," "Sort your clothes at least into light and dark," and "Don't overload the machines." He also warns students not to wash wool sweaters in washing machines unless they want them shrunk to "fit a Barbie doll."

■

Foreign students at New York University's Stern School of Business learned a little about the customs of doing business in the United States through a new course offered at the university last month.

Most of the students in the week-long class, "Communicating in American Business," were Japanese. University officials said they felt the course was necessary because cultural differences could lead to mistakes in business practices.

The course taught the students that in the United States it is acceptable to ask questions both of professors and of bosses, even though questioning superiors may be frowned on in other countries. It also suggested study techniques for business school.

Students

Student Aid Rises 8.3 Pct. in 1988-89; Total Reaches $26.7-Billion, Three-Fourths From Federal Funds

College Board report notes, however, that college costs are rising faster than financial assistance

By ROBIN WILSON

WASHINGTON

Financial aid to college students was 8.3 per cent higher in academic 1988-89 than in academic 1987-88. The increase was the second-largest in this decade.

About $26.7-billion was distributed to students, with the federal government supplying 75 per cent of the funds, colleges and universities 19 per cent, and state governments 6 per cent, according to data compiled by the College Board. Graduate and undergraduate students shared $11.9-billion in loans, $11.3-billion in grants, and $3.5-billion in work-study and other benefits.

The data are from "Trends in Student Aid," a report that the College Board publishes annually.

> **"I certainly think that the situation is better than earlier in the decade. But there are still reasons people are concerned."**

Higher-education officials said the increase in aid last year was a good sign for students. But, they said, the good news is tempered by the fact that college costs continue to rise at a much greater rate than the increase in aid. And the increase in costs continues to outstrip the rise in incomes, making college less affordable.

For example, the cost of attending private institutions rose by 118 per cent from academic 1980-81 to academic 1988-89, while disposable income per person rose by only 67 per cent in the same period. The cost of attending public four-year institutions rose by 77 per cent during that period, and the cost of public two-year institutions rose by 65 per cent.

Some Concerns Remain

"I certainly think that the situation is better than earlier in the decade," said Janet S. Hansen, director for policy analysis at the College Board. "But there are still reasons people are concerned."

Student-aid experts cited these other reasons why the aid picture was not as bright as the College Board data might make it look:

■ Much of the increase in aid to students

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WEIGHING HABITS, HOBBIES, INTERESTS

The Imprecise Art of Roommate Matching: Sorting Out Pre-Med Majors, Unicorn Collectors, and 'Fluff Chicks'

© 1989 LLOYD LEMMERMANN, FOR THE CHRONICLE

Ohio State's Toni Greenslade says students' relationships with their roommates frequently determine whether they are happy at the university.

By SUSAN DODGE

COLUMBUS, OHIO

Eight students and two administrators were holed up this summer in offices at the Ohio State University, sorting through reams of paper that they hoped would give them clues in the daunting task of finding roommates for the university's 6,[illegible]00 freshmen.

Over the course of the summer, they considered a student who described herself as "used to a fast-paced life-style" and another who said she was "very interested in Bible study." The students' hobbies ranged from "building doll houses" to "collecting unicorns." And some students specified whom they'd like as a roommate—"someone who is outgoing" and "someone who is a pre-med major" were two of the most frequent requests.

Most large public institutions rely on computers to pair roommates, but officials at Ohio State spend each summer poring over the scrawled comments of prospective freshmen. After considering students' habits, hobbies, and academic interests, the officials make the matches. Their skill will be tested when students begin arriving on the campus later this month.

Toni Greenslade, who manages the

Continued on Following Page

Student Aid Rises 8.3 Pct.; Total Tops $26-Billion

Continued from Page A29

over the last two years has come in the form of loans, with many low-income persons being forced to borrow large amounts. Most higher-education officials believe that low-income students should receive grants rather than loans. (Studies have shown that those students are more likely than higher-income students to default.)

- Although the amount of money available for Pell Grants has increased by 33.5 per cent since 1980, Congress has not increased the maximum grant per student to keep up with inflation. That is because more lower-income students are enrolling in for-profit trade schools and, on average, are qualifying for larger grants than recipients did in the past, said Arthur M. Hauptman, an independent consultant on student-aid issues.
- The increase in the amount of federal aid that colleges may distribute to students as they see fit, including Supplemental Educational Opportunity Grants and Campus Work-Study, has not kept up with inflation.

11 Million Awards Last Year

According to the College Board report, the number of awards made under federal student-assistance programs has also increased since 1980. About 11 million awards were made to students last year, an increase of 6 per cent over academic 1987-88 and of 27 per cent since 1980-81. The College Board report does not provide information on the number of awards made by state governments and by colleges.

Although borrowing by students has increased dramatically in the 1980's, the board's latest report shows that students received only slightly more under the Stafford Student Loan program last year than in academic 1987-88.

But borrowing under another federal loan program, little used earlier in the decade, has surged in the last couple of years. Students borrowed $2-billion last year under the Supplemental Loans for Students program, up 17 per cent from the year before. College officials suspect that the use of supplemental loans has increased because new restrictions on Stafford Student Loans has made them harder to obtain. Students do not have to pass needs tests to qualify for supplemental loans, as they must for Stafford loans.

Much of the increase in borrowing of supplemental loans has been by students attending for-profit trade schools. Educators are concerned that more students will default on the loans because borrowers must pay a higher interest rate than on Stafford loans.

"This is going to mean a tremendous increase in defaults down the road, because these loans are targeted on exactly the wrong students," says Mr. Hauptman.

Copies of the report, "Trends in Student Aid," are available for $6 each from College Board Publications, Department MO5, Box 886, New York 10101-0886.

FACT FILE: Trends in Student Aid, 1980-81 to 1988-89

Total amounts, in millions of dollars, not adjusted for inflation

Federally supported programs	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88*	1988-89*
Generally available aid									
Pell Grants	$2,387	$2,299	$2,418	$2,792	$3,033	$3,567	$3,443	$3,739	$4,460
Supplemental Educational Opportunity Grants	368	362	343	361	374	410	400	419	393
State Student Incentive Grants	77	77	74	60	76	76	73	75	73
College Work-Study	660	624	615	683	645	656	629	635	706
Perkins Loans	694	580	597	682	677	703	763	805	859
Income-Contingent Loans	0	0	0	0	0	0	0	5	4
Stafford Student Loans	6,200	7,150	6,497	7,260	8,143	8,328	8,330	9,105	9,168
Supplemental Loans for Students	0	16	78	145	221	265	462	1,777	2,071
Parent Loans for Undergraduate Students	3	57	122	171	244	246	307	502	635
Subtotal	10,388	11,164	10,744	12,155	13,414	14,251	14,407	17,063	18,369
Specially directed aid									
Social Security	1,883	1,996	733	220	35	0	0	0	0
Veterans	1,714	1,351	1,356	1,148	1,002	849	780	763	743
Military	203	235	269	301	333	346	364	360	372
Other grants	122	106	85	62	60	67	67	74	80
Other loans	62	109	216	263	327	372	315	293	300
Subtotal	3,985	3,796	2,659	1,993	1,757	1,634	1,526	1,491	1,494
Total federal aid	14,373	14,959	13,402	14,147	15,170	15,886	15,933	18,554	19,863
State grant programs	801	921	1,006	1,106	1,222	1,311	1,432	1,503	1,642
Institutionally awarded aid	2,060	2,247	2,507	2,881	3,221	3,674	4,056	4,561	5,156
Total federal, state, and institutional aid	$17,233	$18,127	$16,915	$18,134	$19,613	$20,870	$21,422	$24,619	$26,661

Total amounts, in millions of constant 1988 dollars

Federally supported programs	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88*	1988-89*
Generally available aid									
Pell Grants	$3,261	$2,890	$2,913	$3,245	$3,395	$3,879	$3,663	$3,819	$4,353
Supplemental Educational Opportunity Grants	502	454	413	420	418	446	425	428	384
State Student Incentive Grants	105	96	89	70	85	83	77	77	71
College Work-Study	902	784	741	794	722	713	669	649	689
Perkins Loans	947	729	719	793	758	764	812	823	839
Income-Contingent Loans	0	0	0	0	0	0	0	5	4
Stafford Student Loans	8,470	8,989	7,827	8,437	9,114	9,055	8,862	9,302	8,949
Supplemental Loans for Students	0	20	94	168	247	288	491	1,815	2,021
Parent Loans for Undergraduate Students	3	71	148	198	273	267	327	513	620
Subtotal	14,190	14,035	12,943	14,125	15,013	15,496	15,327	17,431	17,929
Specially directed aid									
Social Security	2,572	2,509	883	256	39	0	0	0	0
Veterans	2,342	1,698	1,633	1,334	1,122	923	830	780	725
Military	278	295	324	349	372	376	387	368	363
Other grants	166	133	103	72	67	73	71	76	78
Other loans	85	136	260	306	366	405	335	299	293
Subtotal	5,443	4,772	3,203	2,316	1,966	1,777	1,623	1,523	1,459
Total federal aid	19,634	18,806	16,145	16,440	16,979	17,273	16,951	18,954	19,388
State grant programs	1,094	1,158	1,212	1,285	1,368	1,425	1,524	1,536	1,603
Institutionally awarded aid	2,814	2,824	3,020	3,348	3,605	3,995	4,315	4,660	5,033
Total federal, state, and institutional aid	$23,542	$22,789	$20,377	$21,073	$21,951	$22,693	$22,789	$25,150	$26,023

Number of student-aid recipients and amount of aid per recipient

	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88*	1988-89*
Pell Grants									
Recipients	2,708,000	2,709,000	2,523,000	2,759,000	2,747,000	2,813,000	2,732,000	3,001,000	3,250,000
Aid per recipient—current dollars	$881	$849	$958	$1,012	$1,104	$1,268	$1,260	$1,246	$1,372
Aid per recipient—constant dollars	$1,204	$1,067	$1,155	$1,176	$1,236	$1,379	$1,341	$1,273	$1,339
Supplemental Educational Opportunity Grants									
Recipients	717,000	659,000	641,000	649,000	652,000	686,000	631,000	635,000	561,000
Aid per recipient—current dollars	$513	$549	$535	$557	$573	$598	$633	$659	$701
Aid per recipient—constant dollars	$701	$690	$644	$647	$641	$650	$673	$674	$684
College Work-Study									
Recipients	819,000	739,000	720,000	772,000	735,000	728,000	690,000	686,000	765,000
Aid per recipient—current dollars	$806	$844	$854	$886	$877	$901	$912	$926	$923
Aid per recipient—constant dollars	$1,101	$1,061	$1,029	$1,029	$982	$979	$970	$946	$901
Perkins Loans									
Recipients	813,000	684,000	675,000	719,000	697,000	701,000	716,000	674,000	803,000
Aid per recipient—current dollars	$853	$848	$884	$949	$971	$1,003	$1,067	$1,195	$1,070
Aid per recipient—constant dollars	$1,165	$1,066	$1,065	$1,103	$1,087	$1,091	$1,135	$1,221	$1,044
Stafford Student Loans									
Recipients	2,904,000	3,135,000	2,942,000	3,147,000	3,546,000	3,536,000	3,499,000	3,596,000	3,583,000
Aid per recipient—current dollars	$2,135	$2,280	$2,208	$2,307	$2,297	$2,355	$2,381	$2,532	$2,559
Aid per recipient—constant dollars	$2,917	$2,867	$2,660	$2,681	$2,570	$2,561	$2,533	$2,587	$2,497
Supplemental Loans for Students									
Recipients	0	7,000	31,000	56,000	84,000	100,000	169,000	618,000	807,000
Aid per recipient—current dollars	0	$2,334	$2,524	$2,582	$2,631	$2,641	$2,729	$2,877	$2,567
Aid per recipient—constant dollars	0	$2,934	$3,041	$3,000	$2,944	$2,871	$2,904	$2,939	$2,506
Parent Loans for Undergraduate Students									
Recipients	1,000	22,000	49,000	66,000	93,000	93,000	112,000	167,000	203,000
Aid per recipient—current dollars	$2,500	$2,541	$2,505	$2,596	$2,636	$2,647	$2,744	$3,012	$3,133
Aid per recipient—constant dollars	$3,415	$3,194	$3,018	$3,017	$2,950	$2,878	$2,919	$3,077	$3,058
State Grants and State Student Incentive Grants									
Recipients	1,140,000	1,448,000	1,493,000	1,528,000	1,580,000	1,543,000	1,552,000	1,554,000	1,585,000
Aid per recipient—current dollars	$770	$689	$723	$763	$822	$899	$970	$1,016	$1,082
Aid per recipient—constant dollars	$1,052	$866	$871	$887	$919	$977	$1,032	$1,038	$1,056

Note: Because many data sources do not separate financial assistance for undergraduate and graduate students, these figures describe aid to both. They give a consistent picture over time of aid available to students in general, but the impact of the aid may be different for the two groups.

Several of the "federally supported" aid programs include small amounts of money from sources other than the federal government. For example, College Work-Study includes some contributions by institutions, although most of the funds in the program are federal. Perkins Loans are financed from federal and capital contributions and collections from borrowers.

Federal State Student Incentive Grants are reported under "federally supported" aid and excluded from state awards.

Funds for Stafford Loans (formerly called Guaranteed Student Loans), Supplemental Loans for Students, and Parent Loans for Undergraduate Students come mostly from private sources. The federal government subsidizes interest payments and repays defaults. Amounts reported represent loan commitments rather than amounts loaned, but there is not much difference between the two.

Veterans' benefits are payments for postsecondary education and training to veterans and their dependents.

Military aid covers the Armed Forces Health Professions Scholarship program, Reserve Officers' Training Corps programs for the Air Force, Army, and Navy, and higher-education tuition assistance for military personnel on active duty.

An asterisk (*) indicates estimated figures.

Because of rounding, details may not add to totals.

SOURCE: THE COLLEGE BOARD

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While some researchers oppose returning skeletal remains to Indian groups, the movement to do so is gaining momentum: Page A5.

A sex-education course at a community college has triggered a battle over academic freedom: Page A24.

New Mexico's college officials know how much the state's political dynamics changed last year when Hispanic lawmakers became leaders of the Legislature: Page A27.

The White House science office wants to spend $2-billion on high-technology programs: Page A27.

Congress is being pressured to weaken a law requiring more competition in the awarding of federal research contracts: Page A31.

U. S. foundations are considering resuming ties with China: Page A33.

Officials of black colleges moved to distance their institutions from a Labor Day gathering that ended in violence: Page A36.

Professors at North Carolina State U. are asking whether they did enough to insure academic integrity in the basketball program: Page A39.

South African police arrested hundreds of students and faculty members at anti-apartheid demonstrations held the week before parliamentary elections: Page A41.

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VOICES LOST IN THE DIN

Scholars in the Humanities Are Disheartened by the Course of Debate Over Their Disciplines

By ELLEN K. COUGHLIN

Several years of rancorous debate over the "crisis" in their disciplines have left many scholars in the humanities dissatisfied with the way that debate has played out and convinced that important arguments are being lost in the din.

Practically since the day William J. Bennett took over as chairman of the National Endowment for the Humanities in 1981, academic humanists have been hearing that too much of their research and teaching was politicized, trivialized by a fascination with popular culture, and preoccupied with questions of race, gender, and class.

The criticisms were made most notably by Mr. Bennett, as head of the endowment and later as Secretary of Education; by his successor at the N.E.H., Lynne V. Cheney; and by Allan Bloom, a philosopher at the University of Chicago who is the author of *The Closing of the American Mind*, a phenomenal best seller. Their ideas found favor with professors of a more traditional stripe, and not a few journalists chimed in with articles and editorials implying that the great books and ideas of Western civilization were being trashed.

> **"Mainstream humanists are more reluctant than they should be to acknowledge that their work does perform vital functions in the society."**

Those volleys have been answered, fitfully and with far less publicity, by scholars who have argued that new research on such questions as subjectivity, the historical and social contingency of values, and the "indeterminacy" of language provided valuable insights into the understanding of literature, history, and culture.

But the battle has been waged primarily, albeit unevenly, between the extremes of what might be thought of as the cultural left and right, and many scholars are complaining that voices are missing from the debate. Professors in many quarters—including the so-called left, which is the voice most often raised against Mr. Bennett and the others—are coming to the conclusion that they need to do a better job of explaining themselves beyond the narrow confines of academe.

"The much more public nature of the debate now," says Gerald Graff, professor of humanities and English at Northwestern University, "is forcing academics on very different sides to re-

Continued on Page A14

President Proposes to Deny U.S. Support to Colleges That Don't Adopt 'Tough but Fair' Drug Policies

By THOMAS J. DeLOUGHRY

WASHINGTON

The Bush Administration has proposed that colleges and universities be denied federal funds unless they adopt tough policies that include penalties against students and employees who use drugs.

The proposal is part of the President's $7.9-billion war on drugs, which he unveiled in a nationally televised speech last week. To pay for the overall drug program, the Administration suggested cutting $716-million from other programs, but education funds would be spared.

The higher-education proposal would make colleges ineligible for all federal money—including research grants and student aid—if they did not have strict drug policies, according to a report on the strategy prepared by the Office of National Drug Control Policy.

Philosophy of 'User Accountability'

William J. Bennett, director of the drug-control office, said the proposal was consistent with the Administration's philosophy that drug users be held accountable for their activities by denying them federal benefits.

"Institutions that receive money from the federal government will know what we mean about user accountability," Mr. Bennett said. "They must have clear poli-

Continued on Page A30

81 Colleges and Institutes in 'Space Grant' Program to Get Aid From NASA

WASHINGTON

The National Aeronautics and Space Administration has selected 81 universities, colleges, and research institutes to participate in a new network of "space grant" colleges.

The network, intended to parallel the U.S. Department of Agriculture's system of land-grant colleges and universities and the Department of Commerce's sea-grant colleges, will provide consortia of institutions with annual support from the space agency through grants and fellowships that involve space-related activities.

NASA said the institutions had been se-

Continued on Page A8

Many Medical Professors at Private Research Universities Earn More Than Presidents

By DEBRA E. BLUM

Chief executive officers at the nation's most prestigious private research universities received compensation in 1987-88 that ranged from $99,999.96 for Washington University's president to $275,000 for Columbia's, an examination of federal tax forms has disclosed.

While the presidents generally earned more than their counterparts at public research universities, many of them were paid far less than some of their own professors—particularly faculty members in medical fields. In two cases, medical-school professors, whose compensation included income from clinical practice, earned well over $1-million.

Most of the information on compensation was obtained by *The Chronicle* from federal tax forms filed by 23 of the 25 private institutions that are classified as Research I universities by the Carnegie Foundation for the Advancement of Teaching. As classified by the foundation, such institutions offer advanced degree programs and receive at least $33.5-million in federal support for research and development.

The salaries of the presidents and the five highest-paid employees at major, private research universities: Page A22.

The other two institutions—California Institute of Technology and Northwestern University—had requested an extension for filing their tax forms, but provided the salaries of their presidents to *The Chronicle*.

Yeshiva University's tax form did not include the president's salary because he was listed on the form as a trustee who received no compensation. Yeshiva officials refused to provide the president's salary for his duties as chief executive.

While private colleges and universities have traditionally been reluctant to release salary information, most public institutions, covered by various state disclosure laws, have had to make the compensation

Continued on Page A19

MARGINALIA

"You aren't the only one finding ancient material on your desk," writes Suellen Cabe of Pembroke State University, referring to a recent confession in this space.

"At least when you're a geologist [Ms. Cabe is], you can say you just have a little stratigraphy going on your desk and you found something from the Precambrian."

Ms. Cabe sent along an envelope she received last March from *PC* magazine, addressed (by computer, we assume) as follows:

SUELLEN PEMBROKE S. CABE
TATE UNIV. ASST. PROF.

■

Cleaning *his* desk the other day, Prof. Sam Grim, of the University of Maryland, found this item that he had clipped last winter from the student paper, *The Diamondback:*

"The Terrapin men's basketball team had a little fun last night as they took a step out of the Atlantic Coast Conference and walked back into the win column.

"Using everybody they had, the Terps (14-10, 4-7) cruised by the University's Eastern Shore campus, 101-51, before 4,765 at Cole Field House. . . .

"The game had a playground type atmosphere with a lot of running and gunning and even a fight. Terp forward Rodney Walker and Hawk center Mike Kirkland got into it with 7:15 left in the game. It was Walker getting the worst of it as Kirkland hit him in the eye. . . .

"Walker was about all the Hawks could hit as they shot a poultry 38 percent from the field."

That's hawks for you.

■

And from a pile of old clippings we found on *our* desk comes this one, from an April 1988 issue of Michigan State University's campus paper, *The State News:*

"One of MSU's premier scientists will give up his post as co-director of the Cyclotron July 1. . . .

"His absence of management at the University will be sorely missed."

The State News minces no words.

■

Given the lateness of everything else in this space this week, it seems appropriate to pick up this note from the April 1988 issue of *Omnibus*, a newsletter at Meharry Medical College:

"The Foundation for Rectitude and Timeliness (FRET) has awarded the Office of Research Support Services a grant to study procrastination among biomedical scientists. . . . The study began as a casual reading project to understand why the research office could never publish *Omnibus* by the first of each month. . . ."

—C.G.

In Brief

Cal. High Court Upholds Agriculture Ruling

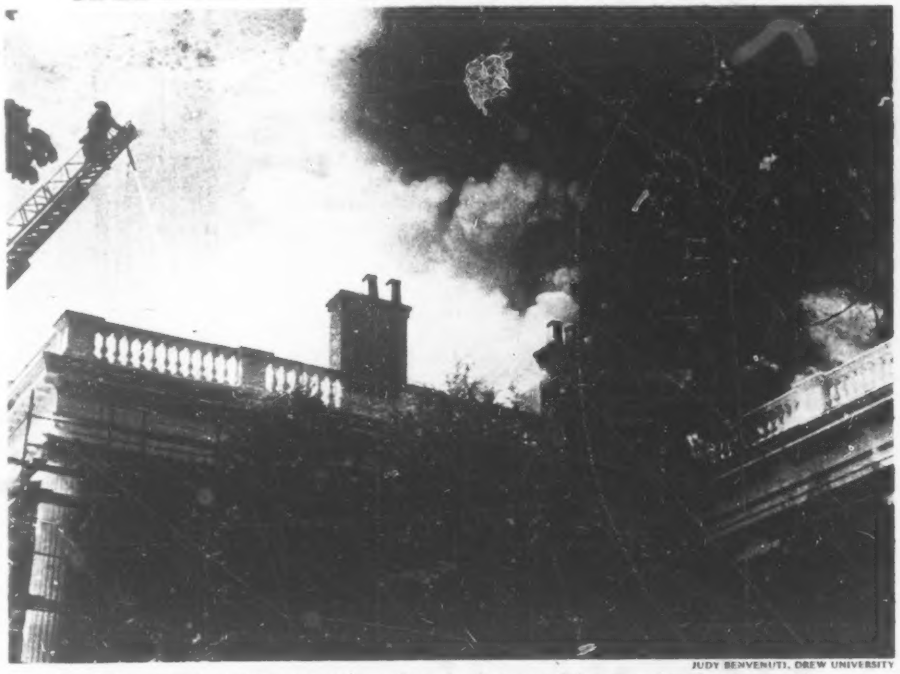
SAN FRANCISCO—The California Supreme Court last week let stand an appellate court's decision that rejected a lawsuit to require the University of California to revise its agricultural research program to provide more benefits for small farmers.

The 11-year-old suit, filed by California Rural Legal Assistance, a public-interest group, was viewed as a major challenge to the university's $116-million-a-year agricultural-research program.

In a decision that drew wide attention, Superior Court Judge Raymond L. Marsh ruled two years ago that the research program should give small farmers "primary consideration" under requirements of federal law. But his ruling was overturned in May by the California Court of Appeal.

Lawyers for the plaintiffs said they were uncertain whether the case would be appealed to the U.S. Supreme Court.

BLAZE DAMAGES HISTORIC BUILDING AT DREW UNIVERSITY



JUDY BENVENUTI, DREW UNIVERSITY

Two days before the start of the semester, a fire of unknown origin caused major damage to Mead Hall at Drew University. The 155-year-old Greek Revival building, which is a registered landmark, houses administrative offices. Despite the fire, classes began on schedule.

Student Held in Murder of Medical Professor

GAINESVILLE, FLA.—A graduate student at the University of Florida has been arrested in the slaying of a professor there.

Arthur K. Kimura, an associate professor of pathology, was found shot in his home by Alachua County sheriff's deputies. The officers were responding to a call that a burglar alarm had sounded at the house.

A vehicle seen leaving the home was stopped by a deputy a short distance from the professor's house. Evidence in the vehicle and statements from witnesses led police to arrest the driver, Jens Peter Hansen, a graduate student at the university.

Mr. Hansen has been charged with first-degree murder and is being held without bail. Capt. Robert W. Hamilton, a detective in the sheriff's department, said he could not discuss the motive for the killing because the investigation was continuing.

No Bias, Judge Rules, in Harvard Tenure Denial

BOSTON—A federal judge has ruled that the Harvard Business School did not discriminate against Barbara Bund Jackson when it denied her tenure in 1983.

In his decision, Judge Douglas P. Woodlock of Federal District Court in Boston said: "The evidence presented satisfied me that the judgment not to recommend Ms. Jackson for tenure was not infected by considerations of gender." But the judge criticized Harvard for destroying 10 years' worth of tenure documents requested by the court and for using "a spurious privilege not to disclose the particulars of tenure discussions and evaluations." Harvard lawyers said the documents were destroyed by accident.

Ms. Jackson, who now works as a consultant, said she would appeal the ruling.

Emerson Cancels Plans to O[illegible]n Law School

BOSTON—Emerson College has announced that it will not open a law school this fall in Lowell, Mass., as it had planned.

The decision was greeted with dismay by the approximately 140 students who were scheduled to begin classes last week, some of whom protested outside a meeting of the college's trustees. The decision came after city officials in Lowell withdrew financial incentives that the college believed made the law school a viable venture, said William S. Harrold, executive director of college relations at Emerson.

In addition, the college was unable to acquire title to the law library and other assets of the Commonwealth School of Law, which closed earlier this year.

"The financial incentives were a prerequisite for Emerson to go ahead with the school," Mr. Harrold said. "They were promised

Book Details College President's Mysterious Disappearance, Reappearance

By COURTNEY LEATHERMAN

Jay Carsey chucked it all seven years ago—his wife, his mansion in southern Maryland, and his job as president of Charles County Community College.

At the time, other college presidents assumed that Mr. Carsey's disappearance was the ultimate response to the stress so familiar to all of them. Many were torn between feeling empathy and envy for the man who took off one Wednesday morning, fulfilling what some executives said was their own fantasy.

But a year later, Mr. Carsey was back in higher education at El Paso County Community College, where he is now a top administrator. He is also the subject of a new book by Jonathan Coleman, *Exit the Rainmaker*. The 401-page book is being published by Atheneum this week.

"It may be disappointing to people that he's back in education," says Mr. Coleman, but it's not surprising.

Adds John Sine, now president of the college Mr. Carsey abandoned: "He went back to doing what he knew best."

Says Mr. Carsey: "Certainly after being a college president for 17 years, I wasn't interested in being a college president again." But he adds, "I've always said the community-college field is where the action is."

Jay Carsey: "After being a college president for 17 years, I wasn't interested in being a college president again."

A Handful of Notes

Without fanfare, Mr. Carsey disappeared May 19, 1982, leaving only a handful of notes to tell his wife and his colleagues that he had gone (*The Chronicle*, June 30, 1982). Mr. Sine, then the dean of the college, received a postcard: "Exit the rainmaker."

Once, in an amateur production, Mr. Carsey had brought rain to a town's parched fields as the lead in N. Richard Nash's play *The Rainmaker*. Many believed he had done the equivalent for Charles County by building up the community college.

Ultimately, Mr. Carsey says he left because he "wanted to get out of the lifestyle of the presidency."

"It wasn't so much the job as it was the lifestyle of being a college president in southern Maryland."

Mr. Coleman believes Mr. Carsey wanted to get away from the active social life he and his former wife led. But Mr. Coleman thinks the pressure of the job of a college president—in and of itself—also played a big part in Mr. Carsey's decision to escape. Mr. Coleman points to budget cuts and layoffs that Mr. Carsey was forced to make before he left the college.

Says Mr. Coleman: "Because things had gone his way for so long, he really thought of himself as a kind of rainmaker." He adds: "For the first time, he found things going against him. It was more than he could take."

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OBTAINED FROM TAX FORMS

Compensation of Chief Executives and Top Earners at 25 Private Universities

The list below shows the compensation of chief executives—and of the five highest-paid employees who are not officers, directors, or trustees of their institutions—at 25 private universities. Most information is for the fiscal year ending June 30, 1988, but a few universities use different periods.

The institutions listed are classified as "Research I" universities by the Carnegie Foundation for the Advancement of Teaching, which groups institutions in 10 categories based on several criteria. In 1987, the foundation classified 45 public and 25 private institutions as Research I universities because they offered advanced-degree programs, gave a high priority to research, and received at least $33.5-million in federal support for research and development.

Most compensation figures were obtained from federal tax forms that private, tax-exempt colleges and universities must file annually with the Internal Revenue Service.

Two private institutions that requested a filing extension provided the salaries of their presidents, but other compensation information was not available.

Generally, income reported for the five highest-paid employees includes only the amount they earned for performing teaching or administrative services. In some cases, the compensation that medical-school faculty members received from clinical practice at the university hospital was included as part of their overall earnings. Most institutions, however, did not provide a breakdown of the compensation.

In addition, some compensation figures may include one-time, severance, retirement, or other payments, while other figures may reflect earnings for only a portion of the year. Most institutions did not make such distinctions in the reporting process.

The figures do not reflect any non-taxable earnings, such as university contributions to deferred-income plans, employee-benefit plans, expense accounts, or other allowances.

BOSTON UNIVERSITY

Chief executive:
John R. Silber, $245,000

Five highest-paid employees:
Richard H. Egdahl, vice-president for academic health affairs: $190,000
John I. Sandson, dean of the School of Medicine: $175,000
William B. Harvey, general counsel: $170,000
Norman G. Levinsky, professor of medicine: $161,000
Raymond S. Koff, professor of medicine: $156,000

CALIFORNIA INSTITUTE OF TECHNOLOGY

Chief executive:
Thomas E. Everhart, $20,535[1]

CARNEGIE-MELLON UNIVERSITY

Chief executive:
Richard M. Cyert, $105,300

Five highest-paid employees:
Larry E. Druffel, director of Software Engineering Institute: $151,475
Herbert A. Simon, professor of psychology and computer science: $147,615
Allan H. Meltzer, professor of political economy and public policy: $145,333
Allan Newell, professor of computer science: $141,333
Yuji Ijiri, professor of accounting and economics: $135,067

CASE WESTERN RESERVE UNIVERSITY

Chief executive:
Agnar Pytte, $174,999.96

Five highest-paid employees:
Avroy Fanaroff, professor of pediatrics: $229,679
Richard Martin, professor of pediatrics: $183,862
Adel A. Mahmoud, professor of medicine and director of Center for International Health: $182,500
William Speck, chairman, department of pediatrics: $175,500
Richard E. Behrman, dean, School of Medicine: $170,000

COLUMBIA UNIVERSITY

Chief executive:
Michael I. Sovern, $275,000

Five highest-paid employees:
Frederick A. Rapoport, assistant professor of clinical medicine: $946,000
Eric A. Rose, assistant professor of surgery: $733,758
Frank E. Gump, professor of surgery: $490,463
George J. Todd, assistant professor of clinical medicine: $441,500
Lewis P. Schneider, assistant professor of clinical medicine: $415,500

CORNELL UNIVERSITY

Chief executive:
Frank H. T. Rhodes, $112,294

Five highest-paid employees:
Karl Krieger, assistant professor of surgery: $1,515,078
Wayne Isom, professor of surgery: $1,420,648
Jeffrey Gold, assistant professor of surgery: $515,506
Jeremiah Barondess, assistant professor of surgery: $462,979
Michael Lavyne, assistant professor of surgery: $453,341

DUKE UNIVERSITY

Chief executive:
H. Keith H. Brodie, $198,000

Five highest-paid employees:
David C. Sabiston, Jr., chairman, department of surgery: $154,800
Richard L. McCann, assistant professor of surgery: $154,000
Joseph C. Greenfield, chairman, department of medicine: $143,100
Robert B. Jennings, chairman, department of pathology: $143,100
Bernard J. Carroll, chairman, department of psychiatry: $139,900

HARVARD UNIVERSITY

Chief executive:
Derek C. Bok, $138,027

Five highest-paid employees:
Daniel C. Tosteson, dean, Medical School: $168,500
Sholem Postel, assistant clinical professor of medicine: $155,000
John R. Brooks, professor of surgery: $141,321
John McArthur, dean, Business School: $139,000
James Vorenberg, dean, Law School: $138,000

HOWARD UNIVERSITY

Chief executive:
James E. Cheek, $187,269

Five highest-paid employees:
Vivian W. Pinn, chairman, department of pathology: $185,169
Calvin Sampson, vice chairman, department of pathology: $152,266
Pongrac N. Jilly, laboratory director, professor of medicine: $149,719
James S. Teal, chairman, department of radiology: $143,318
Russell L. Miller, dean, College of Medicine: $135,923

JOHNS HOPKINS UNIVERSITY

Chief executive:
Steven Muller, $222,307

Five highest-paid employees:
Bert M. Glaser, associate professor of ophthalmology: $308,214
Bruce A. Reitz, professor of cardiology: $271,130
Walter J. Stark, professor of ophthalmology: $267,843
Ronald E. Michels, professor of ophthalmology: $266,012
Timothy J. Gardner, dean, College of Medicine: $230,429

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Chief executive:
Paul E. Gray, $181,965

Five highest-paid employees:
Walter E. Morrow, laboratory director, professor of electrical engineering and computer science: $169,500
Gerald L. Wilson, dean, School of Engineering: $142,000
Jonathan Allen, laboratory director, professor of electrical engineering and computer science: $140,000
Donald C. MacLellan, assistant laboratory director: $133,750
Arnold N. Weinberg, chairman, medical department: $133,000

NEW YORK UNIVERSITY

Chief executive:
John Brademas, $237,375

Five highest-paid employees:
Irwin Freedberg, chairman, department of dermatology: $222,586
Rudolfo Llinas, chairman, department of physiology: $182,230
Charles Hollander, professor of endocrinology: $159,335
Joseph Dancis, chairman, department of pediatrics: $159,251
Vittorio Defendi, chairman, department of oncology: $150,326

NORTHWESTERN UNIVERSITY

Chief executive:
Arnold R. Weber, $186,333

PRINCETON UNIVERSITY

Chief executive:
Harold T. Shapiro, $85,000[2]

Five highest-paid employees:
T. Dennis Sullivan, president, Princeton University Investment Company: $190,000
Hisashi Kobayashi, dean, School of Engineering and Applied Science: $143,000
Aaron Lemonick, dean of faculty: $127,000
Robert E. Tarjan, professor of computer science and engineering: $125,861
Harold P. Furth, director, Plasma Physic Laboratory, and professor of astrophysics: $124,000

ROCKEFELLER UNIVERSITY[3]

Chief executive:
Joshua Lederberg, $160,000

Five highest-paid employees:
Torsten Wiesel, professor of neurobiology: 132,000
Emil T. Kaiser, research associate, biochemistry: $125,500
James Darnell, Jr., professor of molecular cell biology: $125,000
Gerald Edelman, professor of developmental and molecular biology: $125,000
Robert Roeder, professor of biochemistry and molecular biology: $125,000

STANFORD UNIVERSITY

Chief executive:
Donald Kennedy, $182,917

Five highest-paid employees:
Norman E. Shumway, professor of cardiovascular surgery: $389,245
Edward B. Stinson, professor of cardiovascular surgery: $352,137
John W. Hanbery, professor of surgery: $343,764
Philip E. Oyer, professor of cardiovascular surgery: $313,961
Gerald D. Silverberg, professor of surgery: $238,410

UNIVERSITY OF CHICAGO

Chief executive:
Hanna H. Gray, $208,000

Five highest-paid employees:
Robert B. Karp, chief of cardiac surgery: $380,175
John F. Mullan, chairman, department of neurosurgery: $335,000
Thomas J. Krizek, chairman, department of surgery: $331,463
Frank P. Stuart, professor of surgery: $295,160
William R. Panje, chairman, department of otolaryngology: $290,000

UNIVERSITY OF MIAMI

Chief executive:
Edward T. Foote, $190,000

Five highest-paid employees:
Herbert L. Rosomoff, professor of neurological surgery: $282,977
Larry K. Page, professor of neurological surgery: $241,144
N. B. Craythorne, chairman, department of anesthesiology: $240,470
George Blankenship, associate professor of ophthalmology: $207,423
Frank Eismont, associate professor of orthopedics and rehabilitation: $207,182

UNIVERSITY OF PENNSYLVANIA

Chief executive:
F. Sheldon Hackney, $220,000

Five highest-paid employees:
Alan J. Wein, professor of urology: $620,000
William Norwood, professor of surgery: $495,543
William Postic, associate professor of surgery: $485,820
A. Lee Osterman, professor of orthopedic surgery: $473,000
W. Clark Hargrove, assistant professor of surgery: $424,459

UNIVERSITY OF ROCHESTER

Chief executive:
G. Dennis O'Brien, $190,000

Five highest-paid employees:
James R. Woods, associate professor of obstetrics and gynecology: $218,949
Philip Rubin, professor of radiation oncology: $188,970
Ronald A. Gable, professor of anesthesiology: $185,145
John R. Thornbury, professor of radiology: $173,437
Robert E. O'Mara, professor of nuclear medicine: $171,527

UNIVERSITY OF SOUTHERN CALIFORNIA

Chief executive:
James H. Zumberge, $205,000

Five highest-paid employees:
Jack Steele, dean, School of Business Administration: $446,277[4]
Franco Muggia, professor of medicine: $217,168
Joseph Merante, dean, admissions and financial aid: $204,877[4]
Stephen J. Ryan, Jr., chairman, department of ophthalmology: $187,913
Scott H. Bice, dean, Law Center: $165,500

VANDERBILT UNIVERSITY

Chief executive:
Joe B. Wyatt, $255,150

Five highest-paid employees:
Harvey W. Bender, professor of thoracic and cardiac surgery: $426,519
John W. Hammon, associate professor of thoracic and cardiac surgery: $332,100
Wallace W. Neblett, chairman, department of pediatric surgery: $327,904
Walter H. Merrill, assistant professor of thoracic and cardiac surgery: $320,623
R. Bruce Shack, associate professor of plastic surgery: $299,611

WASHINGTON UNIVERSITY

Chief executive:
William H. Danforth, $99,999.96

Five highest-paid employees:
Charles B. Anderson, professor of general surgery: $434,583
Clarence Weldon, professor of surgery and cardiothoracic surgery: $432,215
Vernon L. Young, professor of plastic and reconstruction surgery: $400,000
James L. Cox, professor of cardiac surgery: $385,000
Paul M. Weeks, professor of plastic and reconstruction surgery: $375,000

YALE UNIVERSITY

Chief executive:
Benno C. Schmidt, Jr., $175,500

Five highest-paid employees:
Gary Kopf, associate professor of cardiothoracic surgery: $243,115
Josef K. Wang, professor of anesthesiology: $217,211
William F. Collins, Jr., acting chairman, department of surgery: $215,497
John A. Elefteriades, associate professor of surgery: $214,036
Stephen Ariyan, professor of plastic surgery: $196,913

YESHIVA UNIVERSITY

Chief executive:
Salary not available

Five highest-paid employees:
Irwin R. Merkatz, chairman, department of obstetrics and gynecology: $238,001
Dominick Purpura, dean, Albert Einstein College of Medicine: $213,750
David Zysman, vice-president for development: $195,833
Louis M. Sherwood, chairman, department of medicine: $194,482
Herman van Praag, chairman, department of psychiatry: $172,292

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[1] Took office August 21, 1988 and was paid only in last six weeks of fiscal year.
[2] Took office January 1, 1988, hence was not paid for entire fiscal year.
[3] Rockefeller University, which is primarily a research institute, is classified as a Research I university even though it does not meet all the criteria for this category.
[4] Figure includes one-time retirement payment.

Compiled by Debra E. Blum and other Chronicle staff writers.

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News Summary

Articles on inside pages

Psychologists studying memory continue to learn from a man who underwent experimental brain surgery in 1953. Page A4.

Pink orchids and blue birds are providing evidence that organisms pay a price for reproducing: Page A4.

Jobs for spouses are another lure colleges can use to attract potential faculty members: Page A13.

A Senate committee voted to boost next year's student-aid budget by 4.8 per cent—slightly less than the rate of inflation. It also approved increases for research in health and science: Page A19.

The price-fixing investigation by the Justice Department has expanded to include at least 40 colleges and universities: Page A19.

A black Louisiana official has been nominated for the top federal higher-education post: Page A19.

Brokers and agents are scrambling to help universities market salable research: Page A35.

Standardized-test scores dropped slightly again last year: Page A37.

Cable TV and fast food have become recruiting tools for college admissions officers: Page A37.

Japan's universities may face a crisis as they try to meet the needs of a changing society: Page A45.

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Congress and NCAA Intensify Their Battle Over Disclosing Athletes' Graduation Rates

By DOUGLAS LEDERMAN

WASHINGTON

The race between Congress and colleges to publish the graduation rates of athletes is heating up.

Some Senators want to force disclosure now, saying the National Collegiate Athletic Association has blown its chance to release the information on its own. The N.C.A.A. wishes Congress would delay action until January, when the sports association's members will vote whether to disclose the data. A subcommittee in the House of Representatives says it will act in January if the N.C.A.A.'s members do not.

The latest salvo in the battle was fired last week at a hearing of the Senate Labor and Human Resources Committee, where backers of a bill that would require colleges to publish the graduation rates of athletes and other students urged the Senators to move fast.

They were buttressed by a General Accounting Office study that showed men's basketball and football players in big-time sports programs graduated at rates far below those of other students. (See story on Page A43.)

"Simply stated, this is the right thing to do, and it is right for Congress to do it now," said Sen. Bill Bradley, a New Jersey Democrat who is the measure's principal sponsor in the Senate.

But N.C.A.A. administrators, who with other college officials have consistently opposed Congressional intervention, promised action of their own. Next month, they said, the association's presidents' commission will propose N.C.A.A. legislation that would require big-time-sports colleges to release their graduation rates. The measure would be considered by N.C.A.A. members at their annual meeting in January.

NCAA Leader Would Fight for Law

"I don't think anybody opposes disclosure," Richard D. Schultz, the N.C.A.A.'s executive director, said at last week's Senate hearing. "The whole question is just jurisdictional." He said he would personally fight for the federal legislation if the N.C.A.A. did not vote to release the information in January.

The chairman of the House Postsecondary Education Subcommittee, which held hearings in May on the House version of

Continued on Page A43

Strict Guidelines on Potential Conflicts Proposed for Scientists Receiving Government Support

By DAVID L. WHEELER

WASHINGTON

Two federal agencies proposed conflict-of-interest guidelines last week that would govern almost all federally supported biomedical and behavioral research. They would require scientists supported by government money to file financial-disclosure forms and universities to review those forms and eliminate conflicts of interest.

The National Institutes of Health and the Alcohol, Drug Abuse, and Mental Health Administration proposed the guidelines, which would prohibit agency-supported researchers from having any outside financial interests that could influence their research. University committees would be expected to enforce the prohibitions.

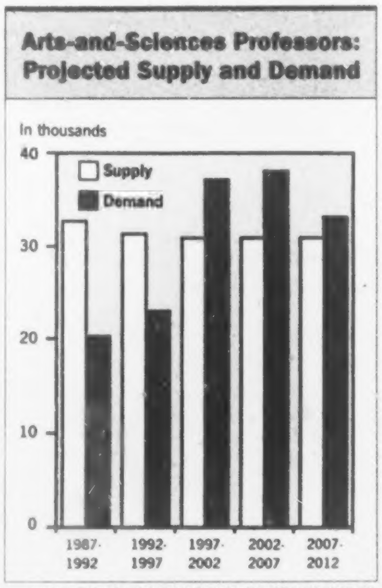
Prohibition Against Holding Stock

In the proposed guidelines, scheduled to be published in the September 15 issue of the N.I.H. *Guide for Grants and Contracts*, the agencies suggest prohibiting scientists who receive agency money from accepting any fees or honoraria from a company that might be affected by the outcome of their research.

Researchers and their families would also be prohibited from holding stock or

Continued on Page A26

Arts-and-Sciences Professors: Projected Supply and Demand



SOURCE: "PROSPECTS FOR FACULTY IN THE ARTS AND SCIENCES: A STUDY OF FACTORS AFFECTING DEMAND AND SUPPLY," BY WILLIAM G. BOWEN AND JULIE ANN SOSA

Big Faculty Shortages Seen in Humanities and Social Sciences

By DEBRA E. BLUM

The arts and sciences face severe faculty shortages in the future, especially in the humanities and social sciences, a new study has found.

However, the study—which makes projections to the year 2012—contradicts the popular impression that a cataclysmic wave of retirements will come within the next 10 to 15 years to drain higher-education's professoriate. It suggests instead that the outflow of present faculty members from academe will be slow and steady over the next 25 years.

Results of the study were released last week in a book, *Prospects for Faculty in the Arts and Sciences: A Study of Factors Affecting Demand and Supply, 1987 to 2012*. Written by William G. Bowen, president of the Andrew W. Mellon Foundation, and Julie Ann Sosa, a graduate student at Oxford University and a researcher

Continued on Page A16

Community Colleges' 'Legitimacy' Seen Threatened by Vocational Emphasis

By BEVERLY T. WATKINS

Community colleges' emphasis on vocational training over traditional liberal-arts programs threatens their "legitimacy" as higher-education institutions, two sociologists argue in a new book.

By concentrating on occupational education and terminal degrees, the researchers contend, the two-year colleges have allowed liberal-arts transfer programs to deteriorate. The number of students going on to four-year institutions has dropped drastically in the last two decades, they say.

If the present trend continues, they say, what were once comprehensive colleges may become "virtual trade schools."

Officials of the American Association of Community and Junior Colleges declined to comment last week, saying they had not seen the book.

The book, *The Diverted Dream: Community Colleges and the Promise of Educational Opportunity in America, 1900–1985*, identifies the decline in the transfer rate—less than 20 per cent of community-college students now move to four-year institutions—as one of the most serious outcomes of the "vocationalization" of the two-year institutions. According to the report, that decline raises critical questions about the colleges' commitment to equal educational opportunity.

The two-year colleges, which enroll almost 54 per cent of the nation's first-time freshmen, have become "the principal gateway to higher education" for members of minority and economically disadvantaged groups, say the authors of the report, Steven Brint of Yale University and Jerome Karabel of the University of Califor-

Continued on Page A18

Student-Loan Default Rates at 3,200 Institutions

A table showing the fiscal 1987 default rates on Stafford Student Loans at 3,200 non-profit higher-education institutions begins on Page A27.

MARGINALIA

We've been standing in the corner, on behalf of whoever took the ad over the phone for our "Bulletin Board" section:

"GENERALISM PROFESSOR: Immediately available. 22 years' college / university experience. 10 years newspaper / magazine editor. . . ."

■

Also from *The Chronicle*, this time from our news columns: "R. Kirby Godsey had big plans for Mercer University when he took the reigns . . . a decade ago."

Giddyap!

■

David W. Brewer, of the medical school at Southern Illinois University, writes:

"Your notes on fictitious radio stations (W- - - or K- - -) struck a creative nerve. We've had a barrel of fun (mis)applying this concept to a hospital / school of medicine." Herewith are selections from Dr. Brewer's list of suggested call letters:

Obstetrics WOMB
Pediatrics WAIF or KIDS
Surgery KUTT or KNIF
Dermatology WART
Orthopedics KNEE or WALK
Medicine KURE
Inhalation therapy WHEZ
Anesthesiology WAKE
Family practice WELL
Radiology KZAP
Diagnostic radiology WHAT
Audiology KLIK
Neurology WIRE
Sports medicine KICK
Rehabilitation WORK
Nursing KARE
Optometry WINK
Pathology WWHY
Cardiology KLOT
Infectious diseases KBUG
Reception desk WAIT
Security KOPS
Bursar WHOA
Directory assistance WHOO

■

John Colling, of the GMI Engineering & Management Institute, adds these:

University hospital WARD
Recreation department at University of Toronto CSAW

■

And from Dawn Havard, of Wayne State University, come:

Reserve Officers Training Corps WHUP
Health and education WSOR
Psychology WIMI
Medicine WAKN
English WHOM
Music WHUM
Law WSUE
French WVOU
Theater WTOB

■

With that, this competition signs off.
—C.G.

In Brief

Protest by Preservationists Halts Middlebury Project

MIDDLEBURY, VT. — Middlebury College has been forced to postpone the start of a $4-million renovation project because of protests from the Vermont Historic Preservation Division.

The college had planned to begin work over the summer on renovating McCullough Gymnasium, a Georgian revival building constructed in 1912, and to add two-story, tower-shaped wings at either end. The proposed 36,000-square-foot expansion would house a student center, game room, dining facility, and offices. The two tower-shaped wings were designed to mirror the French-chateau style of the building that faces McCullough, said a spokesman for the college.

Middlebury's plans were approved in May by the state's environmental commission, but the historic-preservation agency criticized the towers as too modern and incompatible with the building's architectural and historic character, and appealed. Hearings are planned.

Oral Roberts Says He Will Close His Medical School and Hospital

TULSA, OKLA.

Oral Roberts, the evangelist who raised $8-million for his medical school in 1987 by threatening that God would end his life if the contributions didn't come in, announced last week that he was closing the school after classes end in May.

By January, to ease his ministry's $25-million deficit caused by a drop in donations, Mr. Roberts will also close the hospital that is affiliated with the medical school. In addition, he is selling an 830-unit housing complex for married students at Oral Roberts University and four other ministry-owned homes.

He said a $50-million endowment was necessary to prevent the shutdown of the medical complex, and left open the possibility that "some miracle" could happen. —ELIZABETH GREENE

Japanese Plan University in Northern Virginia

STERLING, VA.—Hoping to improve understanding between Asians and Americans, Japanese business and education leaders plan to establish a university in northern Virginia.

Washington International University in Virginia, as the planned institution is tentatively called, will educate Asians and Americans about each other's histories, cultures, languages, and business practices.

The Japanese were attracted to Virginia's Loudoun County because of its proximity to the nation's capital and its rural setting, according to James M. DeFrancia, a real-estate developer working on the project. He said the site would be chosen later this month and classes would begin in the early 1990's.

The university's principal promoter is EIE International Corporation, a large Japanese business that started as an electronics company. The corporation, Mr. DeFrancia said, recognized that "there needs to be an environment for teaching future generations more about each other's cultures and societies."

The Japanese have formed the Washington International Educational and Cultural Foundation to raise money for the university.

Chapel's Cross Reattached at Arizona State U.

TEMPE, ARIZ.—It may have been vandals or simply strong winds that caused a cross to topple from the chapel at Arizona State University, but the administration has reattached it to the building despite a controversy over whether it is an inappropriate symbol for a public institution.

The Faculty Senate at Arizona State voted this summer to ask the president to remove the cross from the roof of the Danforth Chapel, and to remove the word "chapel" from the building's name on the grounds that both were Christian symbols that did not reflect the building's role as a "multi-faith" place of worship.

Shortly after the administration decided to keep the cross on the chapel, the cross fell off the building. Police could not determine the cause.

Arizona State's interim president, Richard E. Peck, announced last month that the cross would be reattached. To resolve the controversy, he said, "the cross should remain in place and those who wish to remove it should seek redress in the courts."

Fraternity Disciplined in Cross-Burning Incident

SAN DIEGO—The University of San Diego has placed Sigma Chi fraternity on probation for three years as a result of a cross-burning incident last May involving 12 members and 17 pledges who were participating in an initiation ritual.

The Roman Catholic university also ordered each of the fraternity's 80 members to perform 25 hours of community service and attend workshops on racial bias.

Thomas Burke, vice-president and dean of students, said the cross burning in a nearby state park "brought embarrassment, scorn, and ridicule" to the university community. He added, however, that the burning was meant to emulate an ancient Roman rite and apparently was not racially motivated.

Jeffrey Schizas, a student who identified himself to police as the coordinator of the initiation, faces misdemeanor charges for lighting a fire in an unauthorized area.

Rice U. Shakespearean Is 'Professor of the Year'

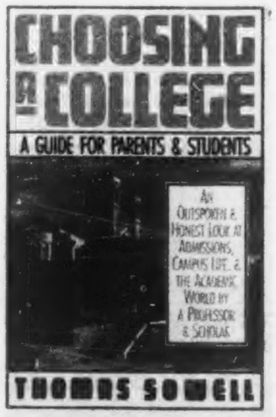
WASHINGTON—A member of the English department at Rice University is the 1989 "Professor of the Year," the Council for Advancement and Support of Education announced last week.

J. Dennis Huston (*below*), a professor at Rice since 1969, specializes in Shakespearean literature. He also has taught courses

TOMMY LAVERONE, RICE UNIVERSITY

A Conservative Scholar Publishes His Own Guide for Choosing a College

By DENISE K. MAGNER


CHOOSING A COLLEGE
A GUIDE FOR PARENTS & STUDENTS
AN OUTSPOKEN & HONEST LOOK AT ADMISSIONS, CAMPUS LIFE, & THE ACADEMIC WORLD BY A PROFESSOR & SCHOLAR
THOMAS SOWELL

Onto the crowded shelf of manuals about selecting a college comes a blunt new handbook by a conservative scholar that seems destined to raise some hackles in higher education.

The book, *Choosing A College: A Guide For Parents & Students*, "pulls no punches in revealing what some colleges are doing," according to its author, Thomas Sowell, a senior fellow at the Hoover Institution at Stanford University.

In the 224-page book, Mr. Sowell has few kind words for interdisciplinary fields such as women's studies or black studies. Such fields "have become notorious for degenerating into rap sessions," writes Mr. Sowell, who is black.

He also urges parents and students—when they visit prospective colleges—to determine whether campuses that tolerate radical feminism and homosexuality are equally tolerant of conservative beliefs and causes.

"On various campuses around the country, virtually nothing promoting the 'sexual revolution' is considered too disgusting to be permitted," he writes, "but an anti-abortion poster showing dead fetuses was banned at Oregon State [University] as not showing 'good taste.' "

Some Rankings Included

Choosing A College, which was published by Harper & Row last month, is a lot like other handbooks in describing the types of institutions available. The book also includes rankings of some colleges according to test scores and other data. But the book parts company with most college guides in its opinionated approach to academic, admissions, and campus-life issues.

For instance, Mr. Sowell criticizes top-tier universities and other colleges that seek to build a sufficient "body count" of minority students by accepting some who are "academically mismatched" to the institutions.

While Mr. Sowell writes newspaper columns about education, the book marks a departure from his more scholarly work concerning education, economics, and race. He is also a well-known critic of affirmative action.

Mr. Sowell did not return phone calls requesting an interview, and later declined to be interviewed about the book through his publisher.

Choosing A College may prove just as controversial as his stand on affirmative action. A sampling of the book's advice:

- "For black students with strong academic backgrounds and composite S.A.T. [scores] above 1,000, *there are simply no black colleges to match them with academically*." The italics are Mr. Sowell's.
- "One-sided presentations are the rule rather than the exception in some fields or in some subjects, such as Marxism, race, feminism, or 'peace studies.' "
- "Don't give up on a good college just because its admissions representative sounded shallow. Many of them are."

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Severe Faculty Shortages Foreseen in the Humanities, Social Sciences

Continued from Page A1

at the foundation, the book warns of a steady pattern of departures among the professoriate that will leave academe scrambling for faculty members if problems of recruitment and retention are not addressed soon.

The shortages, the book says, will be caused not by an unusual "bunching" of retirements, but by a combination of factors, including changes in the age distribution of members of faculties, trends in student enrollment, shifts in the popularity of fields of study, and the continuing increase in the time spent by graduate students in obtaining their doctorates.

While the replacement of faculty members who retire, quit, or die, is expected to account for the greatest demand, other factors, such as changes in student enrollment, will account for fluctuations in demand, the book says.

> **"The most serious shortages are not projected until 10 years from now. We have time to address anticipated problems."**

"Just focusing on the retirement question is not the way to see what the future holds," Mr. Bowen, a former president of Princeton University, said last week. He also noted the study's finding that while particular institutions, fields, or departments might feel the effects of the anticipated end to mandatory retirement, no overall significant quantitative effect is expected.

"People will always retire," he said. "There just may be a little lag time, that's all."

The study was based in large part on surveys of doctorate recipients conducted by the National Research Council and data from the U.S. Department of Education.

The most dramatic changes in the academic job market, the study found, will begin to occur in 1997, when it is projected that roughly four candidates will be available for every five openings in the arts and sciences. In the humanities and social sciences, where shortages are expected to be most pronounced, only 7 candidates will be available for every 10 positions open, according to the study.

Among the disciplines in the arts and sciences, only the biological sciences and psychology are expected to have enough candidates to meet the demand for faculty members in 10 years.

Effects of the shortage will also differ at different types of institutions, the study found. The top liberal-arts colleges, for example, are expected to face the greatest faculty-recruitment problems if present trends continue. Because of the age distribution of their faculties, a large proportion of their professors are expected to retire between 1997 and 2002—the period when most severe overall faculty shortages are also projected.

Early Warning in 1986

Mr. Bowen's and Ms. Sosa's study adds to the increasing amount of attention that the outlook for academic employment has received in recent years. One of the first warnings about future faculty shortages came in 1986, in a book published by Howard R. Bowen and Jack H. Schuster, *American Professors: A National Resource Imperiled*. Since then, individual researchers, the U.S. Department of Education, and the Association of American Universities, among others, have begun studies to examine the conditions of the higher-education job market and graduate education in the future.

Mr. Bowen's and Ms. Sosa's study was the first to focus entirely on the arts and sciences, and to break down its findings by field and sector.

Mr. Bowen said he hoped that everyone interested in the academic enterprise would take note of the study and of the authors' suggestions on how higher-education officials and legislators might address the problem of expected faculty shortages. The Mellon Foundation has not yet formulated plans to use the results of the study, Mr. Bowen said, although new foundation programs may focus on the expansion of graduate education.

"The reassuring aspect of this study," he said, "is that the most serious shortages are not projected until 10 years from now. We have time to address anticipated problems, especially through increased attention to graduate education."

Need for Counseling Seen

According to the study, if the share of new Ph.D.'s seeking academic positions continues to decrease, a 92-per-cent increase in the number of new doctorates in the humanities and the social sciences and a 64-per-cent increase in the number of all new doctorates in the arts and sciences would be needed to meet the demand for faculty positions projected for 1997.

The final chapter of the Bowen-Sosa book outlines what colleges, universities, and the federal government can do to help meet this need.

Institutions, it says, have the responsibility to provide advice and counseling about careers and professional opportunities in academe. They also must commit resources to increase graduate enrollments in the arts and sciences, and shorten the time it takes for a student to earn a doctorate degree.

The federal government, the book suggests, must rely less on student loans and provide more fellowship stipends for graduate study. In addition, it says, the fellowships must be provided on a sustained basis and be focused on more students enrolled in arts-and-sciences graduate programs. Approximately 75 to 80 per cent of all federal financing for fellowships and traineeships goes to science and engineering, the book says.

Copies of *Prospects for Faculty in the Arts and Sciences* are available for $24 each from the Princeton University Press, Order Department, 3175 Princeton Pike, Lawrenceville, New Jersey; (1-800) 777-4726.

Faculty Members in Arts and Sciences: Projected Supply and Demand

	1987-92	1992-97	1997-2002	2002-07	2007-12
Humanities, social sciences					
Supply	14,335	13,633	13,460	13,460	13,460
Demand	10,536	11,758	18,935	19,452	16,795
Surplus or shortage of supply	+3,799	+1,875	-5,475	-5,992	-3,335
Mathematics, physical sciences					
Supply	7,603	7,567	7,471	7,471	7,471
Demand	5,024	5,800	9,312	9,380	7,903
Surplus or shortage of supply	+2,579	+1,767	-1,841	-1,909	-432
Biological sciences, psychology					
Supply	10,600	10,099	10,003	10,003	10,003
Demand	4,818	5,495	8,844	9,054	8,295
Surplus or shortage of supply	+5,782	+4,604	+1,159	+949	+1,708
All arts, sciences					
Supply	32,538	31,299	30,934	30,934	30,934
Demand	20,378	23,054	37,091	37,886	32,993
Surplus or shortage of supply	+12,160	+8,245	-6,157	-6,952	-2,059

Note: The projections assume no change in the 1987 proportion of students enrolled in arts and sciences or in the ratio of students per faculty member

SOURCE: "PROSPECTS FOR FACULTY IN THE ARTS AND SCIENCES: A STUDY OF FACTORS AFFECTING DEMAND AND SUPPLY," BY WILLIAM G. BOWEN AND JULIE ANN SOSA

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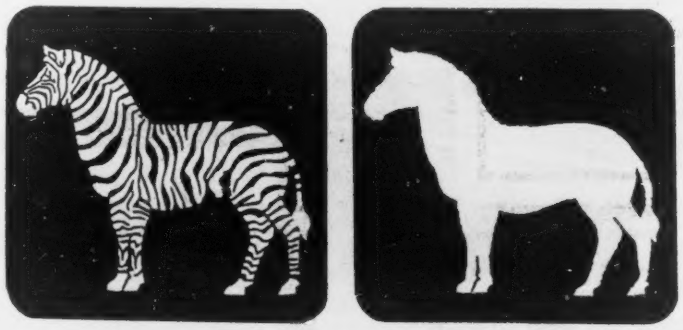

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FACT FILE: Student-Loan Default Rates at More Than 3,200 Institutions

The following table shows the rates of default on Stafford Student Loans at more than 3,200 non-profit colleges, universities, and vocational and technical schools.

The figures were compiled by the U.S. Department of Education and cover fiscal year 1987. In each state, the institutions are ranked in order of descending rates of default.

The default rate represents the proportion of borrowers required to begin paying off their loans in fiscal 1987 who failed to make loan payments in fiscal year 1987 or 1988. The default rate appears in the first column. The second column indicates the number of borrowers who left the institution in 1987. To avoid results based on only a few students, the department did not release data on institutions with fewer than 30 borrowers who were required to begin paying off their loans in fiscal 1987.

In some instances, the department provided separate default rates for branch campuses of institutions and for certain professional schools, such as law schools, affiliated with universities.

In its list, the department abbreviated many institutions' names. *The Chronicle* obtained the full names by checking the institutional codes provided in the list against directories published by the National Center for Education Statistics.

ALABAMA

Lawson St CC	61.4%	430
Carver St Tech Trade Sch	50.0	172
C A Fredd St Tech C	44.4	171
S D Bishop St JC	43.5	230
Talladega C	40.1	142
Miles C	40.0	100
Southern Voc Sch	39.2	97
Trenholm St Tech Inst	36.7	237
Alabama St U	35.2	673
Bessemer St Tech Inst	31.1	132
Shelton St CC	30.7	463
George C Wallace St CC Dothan	30.5	223
Walker St Tech C	29.2	154
Alabama A&M U	26.5	710
George C Wallace St CC Selma	26.3	224
Enterprise St JC	26.2	65
Opelika St Tech C	25.0	56
Oakwood C	24.7	477
Gadsden St JC	24.6	207
Stillman C	22.5	182
John M Patterson St Voc-Tech Sch	21.3	61
Chattahoochee Valley CC	21.1	71
Faulkner U	20.9	235
Southwest St Tech Inst	20.6	131
John C Calhoun St CC	19.5	200
Tuskegee U	17.6	935
Lurleen B Wallace St JC	17.5	63
Alexander City St JC	17.2	58
George C Wallace St CC Hanceville	17.2	262
Ala Aviation & Tech C	16.6	145
Walker C	16.5	121
Jefferson Davis St JC	15.6	77
Livingston U	14.8	304
Reid St Trade Sch	14.6	41
Northwest Alabama St JC	13.9	72
James Faulkner St JC	13.8	116
Jacksonville St U	12.8	818
Mobile C	12.5	168
Muscle Shoals Tech Inst	11.6	129
Jefferson St JC	11.3	328
Auburn U Montgomery	10.5	457
U of Alabama Huntsville	10.5	420
U of Alabama Birmingham	10.3	1,443
Troy St U Montgomery	10.3	155
Troy St U Fort Rucker	8.9	79
U of South Alabama	8.5	1,219
Snead St JC	8.2	73
Birmingham Southern C	7.4	244
Southern Union St JC	7.3	109
Athens St C	7.2	138
U of Montevallo	7.0	329
Troy St U main campus	6.8	572
Saint Vincent's Hosp Sch of Nursing	6.1	33
Spring Hill C	5.6	177
U of Alabama Tuscaloosa	5.3	1,817
U of North Alabama	4.7	535
Samford U	4.5	735
Marion Military Inst	4.0	99
Huntingdon C	3.3	90
Auburn U main campus	3.2	2,054
Coosa Valley Med Ctr Sch of Nursing	3.1	32
Judson C	2.6	76
U S Sports Acad	1.8	111
U of South Ala C of Med	1.4	69
U of Alabama Sch of Med	0.9	117
U of Ala Sch of Optometry	0.0	43
U of Ala Sch of Dentistry	0.0	47

ALASKA

Sheldon Jackson C	21.4%	42
Alaska Pacific U	18.9	37
Anchorage CC	9.6	104
U of Alaska South Central	9.1	88
U of Alaska main campus	4.3	163

ARIZONA

South Mountain CC	42.5%	287
Arizona Inst of Business and Tech	34.0	215
Gateway CC	33.9	251
Eastern Arizona C	33.7%	169
Rio Salado CC	31.4	105
Phoenix C	27.5	679
Cochise C	25.9	410
Central Arizona C	23.4	141
Mohave County CC	23.0	135
Yavapai C	22.4	165
Mesa CC	20.0	833
Glendale CC	19.5	487
Pima C	17.6	884
Scottsdale CC	17.2	261
Arizona Western C	14.9	202
Western International U	13.6	162
Arizona C of the Bible	13.2	38
Grand Canyon U	8.0	414
Arizona St U	7.4	5,901
Northern Arizona U	6.4	1,749
Prescott C	6.3	96
U of Arizona	5.6	3,368
Southwestern C	3.3	30
American Grad Sch of Int'l Management	2.5	606

ARKANSAS

Arkansas Baptist C	55.7%	79
Cotton Boll Voc-Tech Sch	32.6	46
Philander Smith C	30.9	110
Pines Voc-Tech Sch	26.7	30
Crowley's Ridge C	25.0	44
U of Arkansas Pine Bluff	21.7	618
Southern Baptist C	17.0	100
Mississippi Co CC	15.6	128
Northwest Voc-Tech Sch	13.2	68
Pulaski Voc-Tech Sch	13.0	54
Twin Lakes Voc-Tech Sch	12.8	47
Ouachita Baptist U	12.4	241
North Arkansas CC	11.9	126
Black River Voc-Tech Sch	11.3	53
Foothills Voc-Tech Sch	11.0	82
Phillips Co CC	9.5	84
Petit Jean Voc-Tech Sch	9.4	32
White River Voc-Tech Sch	9.4	32
Southwest Voc Tech Inst	8.2	49
Arkansas C	7.4	121
U of the Ozarks	7.4	81
Westark CC	7.1	85
U of Arkansas Monticello	7.0	313
John Brown U	6.7	164
Central Baptist C	6.7	30
Harding C main campus	6.5	749
Southern Arkansas U	6.5	170
Ark St U main campus	5.5	1,339
Arkansas Tech U	5.4	353
U of Ark main campus	4.8	1,995
Garland Co CC	3.9	129
East Arkansas CC	3.8	104
U of Arkansas Little Rock	3.8	772
U of Central Arkansas	3.6	812
Henderson St C	3.1	262
U of Arkansas Med Ctr	1.6	252
Ark St U Beebe Branch	1.5	66
Hendrix C	1.2	171
U of Arkansas Med Ctr Sch of Med	0.0	86

CALIFORNIA

San Francisco CC Ctr	73.6%	379
Tech Health Careers Sch	64.0	328
Los Medanos C	63.2	114
C of the Siskiyous	50.3	147
Lassen C	46.9	211
Taft C West Kern CC	46.8	47
Compton CC	46.7	135
Fresno City C	45.6	562
Barstow C	43.9	41
Cosumnes River C	43.9	155
Merced C	43.4	182
Los Angeles Trade-Tech C	42.3	248
Contra Costa C	42.3	168
Porterville C	42.1	38
Los Angeles Southwest C	41.5	118
Skyline C	41.0	83
Riverside CC	40.9	308
C of Alameda	38.5	205
Merritt C	38.1	139
San Joaquin Delta C	37.6	436
West Hills CC	37.1	97
Cañada C	36.7%	98
Long Beach CC	36.5	1,091
Laney C	35.8	173
Kings River CC	35.1	94
Shasta C	34.5	223
City C of San Francisco	34.2	783
Sacramento City C	33.9	579
Los Angeles Harbor C	33.8	130
Chaffey C	33.5	167
Mount San Jacinto C	33.3	99
Antelope Valley C	33.3	138
Chabot C	32.9	456
Yuba C	32.8	192
Bakersfield C	32.7	101
Cerro Coso CC	32.6	43
Mount San Antonio C	32.4	136
North-West C of Medical and Dental Assistants	32.3	31
Southwestern C	32.1	486
Oxnard C	31.4	70
Los Angeles City C	31.0	268
Victor Valley C	30.8	143
Gavilan C	30.4	69
Allan Hancock C	30.4	92
San Diego City C	30.1	499
Crafton Hills C	29.5	61
C of the Redwoods	28.8	313
Santa Monica C	28.7	442
Casa Loma C	28.6	63
Solano CC	27.8	126
New C of California	27.6	214
Rio Hondo C	27.4	135
West Los Angeles C	27.3	88
Kelsey-Jenny Business C	27.1	203
Ventura C	26.3	156
Butte C	26.0	416
Mira Costa C	25.7	113
Golden West C	25.6	531
Heald C Oakland	25.5	314
Cuesta C	25.4	284
Santa Barbara City C	25.1	406
Columbia C	25.0	32
Moorpark C	24.4	176
C of San Mateo	24.0	171
Pasadena City C	23.6	182
Modesto JC	23.5	102
Napa Valley C	23.5	81
El Camino C	23.2	323
Santa Rosa JC	22.6	500
San Bernardino Valley C	22.6	164
Hartnell C	21.7	46
Cerritos C	21.6	116
Rancho Santiago C	21.5	410
Heald C Walnut Creek	21.3	235
Diablo Valley C	21.3	221
Ohlone C	21.2	113
West Coast Christian C	20.7	58
Marin CC	20.5	220
Monterey Peninsula C	20.4	54
Pacific Christian C	20.4	—108
De Anza C	20.3	463
Los Angeles Pierce C	20.1	293
Glendale C	20.1	164
American River C	20.0	426
Heald Business C San Francisco	19.8	815
Grossmont C	19.6	414
Heald Inst of Tech Martinez	19.5	486
U of West Los Angeles	19.3	259
Fullerton C	19.2	582
Cuyamaca C	19.0	58
Heald C Sacramento	19.0	686
Citrus C	18.5	54
Heald C Santa Clara	18.4	261
Heald C Rohnert Park	18.4	234
Cabrillo C	18.3	191
San Jose CC	18.3	93
Sierra U	18.3	252
San Francisco C of Mortuary Science	18.2	44
The Master's C	17.7	79
San Diego Mesa C	17.5	553
Evergreen Valley C	17.4	69
Heald Inst of Tech San Francisco	17.4	731
Orange Coast C	17.3	560
Mission C	17.2	93
East Los Angeles C	17.1	76
Heald Business C San Jose	17.0	542
Woodbury U	16.8	119
Cal St U Dominguez Hills	16.8	697
Northrop U	16.8	185
C of the Canyons	16.7	36
Los Angeles Valley C	16.7	114
Marymount C	16.4	140
Columbia C	16.4	55
Palomar C	16.1	267
American Acad of Dramatic Arts West	16.0	81
Cypress C	15.8	278
Otis Art Inst of Parsons Sch of Design	15.2	105
Cal St U Los Angeles	15.1	860
Heald Business C Hayward	14.9	281
Foothill C	14.4	153
Sierra C	14.4	167
Coastline CC	14.3	40
San Diego Miramar C	13.9	38
California Inst of the Arts	13.9	348
San Francisco St U	13.9	2,431
San Francisco Art Inst C	13.4	186
California St U Bakersfield	13.2	355
West Valley C	13.0%	192
American Conservatory Theatre	13.0	123
San Francisco Conservatory of Music	12.7	63
Humphreys C	12.2	98
Cogswell C	12.1	66
California St U Hayward	12.1	1,074
Cal St U San Bernardino	11.8	549
California St U Northridge	11.8	1,831
Pacific Union C	11.7	403
Sonoma St U	11.5	705
Cal C of Arts and Crafts	11.5	192
California St U Fullerton	11.4	1,399
C of the Sequoias	11.3	53
World C West	11.1	36
U of La Verne	11.1	783
Pacific C	11.1	190
Loma Linda U La Sierra	11.1	380
California Baptist C	10.9	220
California St U Stanislaus	10.8	424
Cal St U Sacramento	10.4	2,321
S Cal Inst of Architecture	10.3	116
Mount Saint Mary's C	10.2	255
Cal St U Long Beach	10.0	2,399
International C	9.8	173
West Coast U	9.6	178
U S International U	9.5	599
Sch of Theol Claremont	9.3	54
San Jose St U	9.2	1,784
American Film Inst Ctr Advanced Film Studies	9.2	98
Simpson C	9.2	120
Samuel Merritt C of Nursing	9.1	66
Bethany Bible C	9.1	143
San Diego St U	8.7	3,922
Holy Names C	8.5	106
California St U Fresno	8.4	1,623
California St U Chico	8.4	1,898
Chapman C	8.1	665
U of California Santa Cruz	8.0	983
U of California Riverside	7.5	535
Azusa Pacific U	7.4	580
Fielding Inst	7.4	81
Golden Gate U	7.2	939
National U	7.2	4,997
Pitzer C	7.0	171
Pacific Oaks C	7.0	86
Scripps C	6.9	101
Cal St Poly U Pomona	6.8	1,331
Stanford U Sch of Med	6.7	89
C of Notre Dame	6.7	149
Saybrook Inst	6.7	45
Mills C	6.5	214
Southern California C	6.5	277
Humboldt St U	6.4	1,070
California Lutheran C	6.4	389
Cal Maritime Acad	6.3	127
Biola U	6.2	465
Claremont Graduate Sch	6.0	268
Christian Heritage C	5.9	101
U of Southern California	5.9	5,206
U of Cal Los Angeles	5.8	4,546
Art Ctr C of Design	5.8	345
U of California San Diego	5.8	1,772
U of California Irvine	5.7	1,384
U of Cal Santa Barbara	5.6	2,380
U of California Berkeley	5.6	3,524
U of San Diego	5.4	1,015
Point Loma C	5.4	521
Pepperdine U	5.3	873
Saint John's Sem	5.3	38
Dominican C of San Rafael	5.2	134
U of the Pacific	5.2	795
Daniel Freeman Hosp Paramedic Sch	5.1	39
Cal St Poly U San Luis Obispo	5.0	2,304
Whittier C	5.0	438
John F Kennedy U	5.0	598
Los Angeles Co Med Ctr Sch of Nursing	5.0	100
Pacific Sch of Religion	4.9	41
San Francisco Theol Sem	4.9	41
U of San Fernando Valley C of Law	4.9	41
Cleveland Chiropractic C	4.9	308
California Trade Tech Sch	4.8	42
Loyola Marymount U	4.6	736
U of San Francisco	4.6	1,677
Pasadena C of Chiropractic	4.6	109
SW U Sch of Law	4.5	639
Saint Mary's C of Cal	4.3	446
Pomona C	4.2	260
Monterey Inst of International Studies	4.2	213
Coleman C	4.1	678
U of California Davis	4.1	2,167
Claremont McKenna C	3.7	161
Occidental C	3.7	273
U of Cal Los Angeles Sch of Med	3.6	56
U of Redlands	3.5	677
Christ C Irvine	3.5	57
Pepperdine U Sch of Law	3.4	348
Cal Sch of Professional Psych Los Angeles	3.4	89
Westmont C	3.4	297
Pacific Lutheran Theol Sem	3.3	30
Palmer C of Chiropractic West	3.2	309
Gemological Inst of America	3.2%	189
Santa Clara U	3.1	1,003
Cal Sch of Professional Psychology Fresno	3.0	33
Cal Family Study Ctr	3.0	101
Skills and Business Education Ctr	2.9	34
Pacific Graduate Sch of Psychology	2.9	34
U of Cal Hastings C of Law	2.8	600
U of Cal San Francisco Med Ctr	2.8	541
Fuller Theol Sem	2.7	332
Harvey Mudd C	2.6	117
Life Chiropractic C West	2.5	284
Loma Linda U	2.4	716
U of the Pacific McGeorge Sch of Law	2.3	840
Los Angeles C of Chiropractic	2.2	449
Consortium of the Cal St U Sys	2.2	45
Cal Sch of Professional Psychology San Diego	2.1	97
Stanford U	2.0	1,471
Cal C of Podiatric Med	1.5	194
California Inst of Tech	1.5	133
Loyola Law Sch	1.5	618
Cal Inst of Integral Studies	1.4	69
U of San Diego Sch of Law	1.4	589
C of Osteopathic Med of the Pacific	1.2	171
Cal Sch of Professional Psych main campus	1.0	102
S Cal C of Optometry	0.6	157
U of the Pacific Sch of Dentistry	0.5	213
Children's Hosp of LA Sch of Physical Therapy	0.0	31
Wright Inst	0.0	41
Stanford U Sch of Law	0.0	201
Stanford U Grad Sch of Business	0.0	278

COLORADO

San Luis Valley Area Voc Sch	33.8%	80
Trinidad St JC	24.8	133
CC of Denver	21.9	224
Pueblo CC	20.0	200
T H Pickens Tech Ctr Aurora	18.5	65
Pikes Peak CC	18.3	584
Boulder Valley Voc-Tech Ctr	18.0	100
CC of Aurora	18.0	100
Red Rocks CC	16.4	146
U of Southern Colorado	14.2	647
Aims CC	14.0	301
Otero JC	13.5	96
Arapahoe CC	12.8	265
San Juan Basin Area Voc-Tech Sch	11.6	43
Morgan CC	11.1	63
Larimer Co Voc-Tech Ctr	11.1	108
Metropolitan St C	10.8	1,266
Nazarene Bible C	10.8	65
Colorado Mountain C	8.8	147
Mesa C	7.9	541
Western St C	7.7	390
Adams St C	7.0	343
Lamar CC	6.6	76
Front Range CC	6.5	214
U of Colorado Denver	5.3	1,123
Naropa Inst	5.1	98
Colo Northwestern CC	5.0	101
Regis C	4.4	384
U of Northern Colorado	4.3	1,607
Northeastern JC	4.2	264
Fort Lewis C	3.9	386
Colorado St U	3.3	2,627
Loretto Heights C	3.2	189
U of Denver	2.9	1,504
Colorado Sch of Mines	2.8	428
U of Colo Colo Springs	2.6	534
U of Colo main campus	2.5	3,244
Colorado Christian C	2.1	95
Iliff Sch of Theol	1.8	57
Conservative Baptist Theol Sem	1.5	65
Colorado C	1.4	296
Colorado St U C of Veterinary Med	0.0	98
U of Colorado Med Ctr	0.0	463

CONNECTICUT

Housatonic CC	42.5%	80
South Central CC	40.7	108
Greater Hartford CC	29.2	120
Bullard-Havens Regional Voc-Tech Sch	28.8	73
Quinebaug Valley CC	23.5	51
Norwalk CC	23.4	94
Greater New Haven St Tech C	18.5	81
Northwestern Conn CC	18.5	92
Norwalk St Tech C	17.7	96
Mitchell C	14.1	234
Middlesex CC	13.8	87
Manchester CC	13.5	237
Mohegan CC	13.2	108

Continued on Following Page

FACT FILE: Student-Loan Default Rates at More Than 3,200 Institutions—Continued

CONNECTICUT—Continued

Mattatuck CC	12.2%	131
U of New Haven	10.9	801
U of Connecticut Stamford	10.7	84
Albertus Magnus C	10.4	96
Hartford St Tech C	10.0	90
Thames Valley St Tech C	9.9	71
Post JC	9.2	260
Hartford C for Women	9.2	87
Waterbury St Tech C	8.0	75
Southern Conn St U	7.7	1,465
Tunxis CC	7.4	68
Sacred Heart U	7.0	532
Eastern Connecticut St U	6.7	626
Western Connecticut St U	6.5	506
Central Connecticut St U	6.4	1,413
U of Conn Torrington	6.3	32
Eli Whitney Regional Voc-Tech Sch	6.1	33
U of Bridgeport	5.6	1,347
U of Hartford	4.8	1,093
Quinnipiac C	4.3	649
U of Conn Southeastern	4.2	71
Saint Joseph C	4.2	190
Wesleyan U	3.2	536
U of Conn main campus	2.9	3,027
Connecticut C	2.8	282
U of Conn Waterbury	2.8	106
Trinity C	2.7	331
Fairfield U	2.6	654
Hartford Graduate Ctr	2.4	41
Yale U	2.4	1,936
U of Connecticut Hartford	2.3	482
Saint Mary's Hosp Sch of Nursing	2.2	45
Saint Vincent's Med Ctr Sch of Nursing	2.2	45
Saint Francis Hosp Sch of Nursing	1.4	73
U of Conn Sch of Dental Med	1.3	77
Yale U Sch of Med	1.2	86
U of Conn Health Ctr Sch of Med	0.9	107
U of Conn Sch of Med	0.7	137

DELAWARE

Delaware St C	13.4%	350
Delaware Tech & CC Terry	10.9	46
Delaware Tech & CC Southern	10.2	167
Delaware Tech & CC Stanton	9.0	155
Goldey Beacom C	8.8	339
Brandywine C of Widener U	7.4	189
Wesley C	5.2	232
Wilmington C	3.1	97
Delaware Law Sch of Widener U	2.2	357
U of Delaware	1.3	2,524

DISTRICT OF COLUMBIA

National Conservatory of Dramatic Arts	46.5%	43
Georgetown Sch of Science and Arts	42.7	443
U of the District of Columbia	27.0	318
Southeastern U	26.2	183
Humrro Tech Ed Ctr	25.2	357
Antioch U Sch of Law	19.4	206
Benjamin Franklin U	16.3	92
Mount Vernon C	14.8	81
Howard U	14.7	2,389
Gallaudet U	12.4	170
Trinity C	7.6	144
Wesley Theol Sem	6.5	46
Corcoran Sch of Art	5.1	39
George Washington U	4.2	1,556
American U	3.8	1,589
Georgetown U Grad Sch of Arts & Sciences	3.3	300
Georgetown U Law Ctr	2.5	952
Georgetown U	2.4	1,103
Catholic U of America	2.4	1,149
Georgetown U Sch of Med	2.2	322
George Washington U Sch of Med	2.0	251
Johns Hopkins U Advanced Int'l Studies	1.6	122
George Washington U Law Ctr	1.1	525
Georgetown U Sch of Dentistry	0.6	162

FLORIDA

Florida Memorial C	35.6%	579
Bethune Cookman C	25.7	662
Lee Co Area Voc-Tech Sch	23.4	94
South Florida CC	16.1	93
Miami-Dade CC New World Ctr	13.0	123
Miami-Dade CC North	12.6	254
Saint Johns River JC	12.2	49
Florida CC Jacksonville	10.8	371
Manatee Area Voc-Tech Ctr	10.6	47
Erwin Area Voc-Tech Ctr	10.6	236
Miami-Dade CC Med Ctr	10.4	115
Pinellas Beauty C	10.0	30
Charlotte Voc-Tech Ctr	10.0	70
Sheridan Voc Ctr	9.5	42

FLORIDA—Continued

Webber C	9.5%	84
C of Boca Raton	9.3	129
Daytona Beach CC	8.6	700
Miami-Dade CC South	8.5	386
Atlantic Voc Ctr	8.3	60
Hillsborough CC	7.9	442
Florida A&M U	7.8	766
Santa Fe CC	7.5	544
Edward Waters C	7.3	273
Valencia CC	7.2	499
Seminole JC	7.2	251
James Lorenzo Walker Voc-Tech Ctr	7.1	42
Central Florida CC	7.1	141
Indian River CC	7.1	99
Pinellas Voc-Tech Inst	7.0	284
Pensacola JC	7.0	286
Lake Sumter CC	6.7	45
Jones C main campus	6.5	929
Chapman Sch of Seamanship	5.9	34
Tallahassee CC	5.9	205
Jacksonville U	5.7	351
Florida Keys CC	5.6	36
Embry Riddle Aeronautical U	5.4	1,938
Clearwater Christian C	5.4	56
Pasco Hernando CC	5.4	112
Gulf Coast CC	5.3	94
Broward CC	5.3	455
U of Tampa	5.3	361
Palm Beach CC	5.0	261
Brevard CC	4.8	604
Saint Leo C	4.7	278
Ringling Sch of Art and Design	4.5	133
Jackson Memorial Hosp Sch of Nursing	4.3	47
Saint Petersburg JC	4.2	1,467
Palm Beach Atlantic C	3.9	232
Manatee JC	3.8	209
Flagler C	3.8	183
Florida Inst of Tech	3.7	819
Barry C	3.6	385
Florida Baptist Theol C	3.6	83
Saint Thomas U	3.6	444
Florida Atlantic U	3.5	630
Southeastern C of the Assemblies of God	3.5	259
Chipola JC	3.4	58
Florida International U	3.4	587
U of Central Florida	3.3	1,781
U of Miami	3.3	2,389
Eckerd C	3.1	383
Rollins C main campus	2.7	296
U of South Florida	2.6	2,347
U of West Florida	2.3	395
Lake City CC	2.0	147
Nova U	1.9	1,888
Saint Petersburg Voc-Tech Inst	1.9	368
Florida Southern C	1.9	316
Florida St U	1.8	2,934
U of North Florida	1.8	335
Stetson U	1.8	514
U of Florida	1.7	4,988
U of Miami Sch of Med	1.2	259
SE C of Osteopathic Med	1.1	189
Edison CC	0.6	163
Polk CC	0.0	33
Miami Christian U	0.0	34
Tomlinson Adult Ed Ctr	0.0	45
Hobe Sound Bible C	0.0	50
Florida C	0.0	69
Lewis M Lively Area Voc-Tech Sch	0.0	69
Warner Southern C	0.0	91
U of South Fla C of Med	0.0	115

GEORGIA

Moultrie Area Tech Inst	48.5%	163
Morris Brown C	35.3	442
Atlanta Area Tech Sch	34.5	165
Paine C	30.6	209
Interdenominational Theol Ctr	29.5	95
Savannah Area Voc-Tech Sch	28.8	73
Clark C	28.6	629
Carroll Co Area Voc-Tech Sch	26.7	30
Morehouse C	21.9	443
Fort Valley St C	19.8	459
Valdosta Tech Inst	19.4	103
Macon Tech Inst	17.9	39
Columbus Tech Inst	17.3	52
Spelman C	16.8	346
Atlanta U	16.0	381
Savannah St C	15.6	225
Albany St C	14.9	228
Athens Area Tech Inst	13.5	37
South Ga Tech-Voc Sch	13.3	30
Darton C	13.3	105
Augusta Tech Inst	13.0	54
Piedmont C	11.8	34
Albany Tech Inst	11.5	52
Savannah C of Art and Design	11.4	201
Macon JC	10.4	135
Brewton-Parker C	10.0	40
Brunswick JC	9.2	87
Abraham Baldwin Ag C	9.0	211
Swainsboro Tech Inst	8.8	91
Truett McConnell C	8.8	57

GEORGIA—Continued

North Georgia Tech Inst	8.2%	61
Covenant C	8.0	162
DeKalb CC	7.5	321
Georgia Military C	7.0	43
Wesleyan C	7.0	43
Augusta C	6.8	219
Andrew C	6.8	44
Atlanta C of Art	6.8	59
La Grange C	6.8	148
South Georgia C	6.1	66
Valdosta St C	5.9	746
Emmanuel C	5.7	35
Armstrong St C	5.5	163
Floyd JC	5.2	97
Columbus C	5.0	321
Georgia St U	4.8	1,481
Mercer U Atlanta	4.8	147
Morehouse C Sch of Med	4.5	66
West Georgia C	4.4	542
Georgia C	4.3	323
Toccoa Falls C	4.2	144
Tift C	4.1	74
Kennesaw St C	4.0	297
Shorter C	3.8	79
Georgia Southwestern C	3.8	240
Brenau C	3.7	187
Southern C of Tech	3.7	1,245
Life Chiropractic C	3.5	1,032
Agnes Scott C	3.4	89
Gordon C	3.3	91
Gainesville JC	3.1	64
Gwinnett Tech Inst	2.9	68
Georgia Southern C	2.9	796
Emory U Oxford C	2.7	110
Oglethorpe C	2.5	120
Middle Georgia C	2.2	135
Medical C of Georgia	2.1	233
Ga Inst of Tech main campus	2.0	1,196
Emory U Sch of Dentistry	1.8	55
Emory U main campus	1.8	1,188
Berry C	1.7	176
North Georgia C	1.6	186
U of Georgia	1.6	2,444
Clayton JC	1.5	66
Mercer U Southern C of Pharmacy	1.5	133
Emory U Sch of Med	1.4	70
Mercer U main campus	1.4	501
Young Harris C	0.0	44
Reinhardt C	0.0	55
Medical C of Georgia Sch of Dentistry	0.0	55
Georgia Baptist Hosp Sch of Nursing	0.0	78
Medical C of Georgia Sch of Med	0.0	144

HAWAII

Hawaii Pacific C	39.1%	501
U of Hawaii Leeward CC	30.5	131
U of Hawaii Honolulu CC	25.5	98
U of Hawaii Maui CC	24.3	74
Hawaii Loa C	20.3	123
U of Hawaii Kapiolani CC	18.1	188
Brigham Young U Hawaii	17.9	257
U of Hawaii Hilo	16.0	325
Chaminade C of Honolulu	12.9	263
U of Hawaii main campus	4.6	1,445

IDAHO

C of Southern Idaho	25.6%	449
North Idaho JC	25.6	641
Lewis-Clark St C	17.0	464
Boise St U	12.7	1,536
Idaho St U	12.1	1,226
Eastern Idaho Tech C	11.0	146
Northwest Nazarene C	10.1	288
C of Idaho	8.3	108
Ricks C	7.8	858
U of Idaho	6.3	1,420

ILLINOIS

Carlinshar Inst	84.4%	160
St CC of East St Louis	44.4	279
Richland CC	40.1	177
City C of Chicago Kennedy-King	36.2	799
Belleville Area C	33.5	1,001
City C of Chicago City Wide	33.3	177
Lewis & Clark CC	31.1	859
City C of Chicago Truman	30.4	260
Beck Area Voc Ctr	28.7	209
City C of Chicago Malcolm X	28.0	307
Rend Lake C	26.0	154
Decatur Area Voc Ctr	25.9	54
Lincoln Land CC	25.8	511
John A Logan C	25.8	299
Black Hawk C main campus	25.6	508
Elgin CC	25.2	155
Danville JC	24.4	554
Waubonsee CC	24.1	191
Columbia C	24.0	937
Illinois Central C	23.7	709
Joliet Township Sch of Practical Nursing	23.3	30
City C of Chicago Olive-Harvey	22.9	271
City C of Chicago Washington	22.8	421
Kankakee CC	22.5	187

ILLINOIS—Continued

Thornton CC	20.7%	420
East-West U	20.4	98
Shawnee C	19.3	244
City C of Chicago Fenger SE	19.2	73
Parkland C	18.9	970
Highland CC	18.8	112
Carl Sandburg C	18.6	360
Southeastern Illinois C	18.3	191
Moline Public Hosp Sch of Nursing	18.2	33
Kendall C	18.0	122
Moraine Valley CC	17.3	277
Olney Central C	17.2	151
Prairie St C	17.1	199
Frontier CC	16.7	30
Morton C	16.7	72
Wabash Valley C	16.7	126
Sauk Valley C	16.7	234
Lincoln C	16.3	208
Triton C	16.2	563
Joliet JC	16.0	382
Wilbur Wright C	15.5	58
Vandercook C of Music	15.4	52
John Wood CC	15.3	320
C of Lake Co	15.2	230
MacCormac C	14.8	256
Shimer C	14.3	35
Kaskaskia C	14.2	218
Spoon River C	13.6	250
Robert Morris C	13.3	1,821
Lincoln Trail C	13.2	167
Kishwaukee C	13.1	289
Illinois Valley CC	12.8	172
C of Dupage	12.6	589
Chicago St U	11.8	865
Southern Ill U Edwardsville	11.0	1,530
Garrett-Evangelical Theol Sem	10.7	56
Northeastern Illinois U	10.4	586
Capital Area Voc Ctr	10.3	39
Black Hawk C East	10.1	179
N Baptist Theol Sem	10.0	40
Springfield C in Illinois	10.0	40
Saint Anne's Hosp Sch of Nursing	9.7	31
Rock Valley C	9.5	336
Quincy C	9.5	222
Governors St U	9.2	282
Sangamon St U	9.1	342
Lutheran Sch of Theol	8.9	45
South Chicago C Hosp Sch of Nursing	8.9	45
Sch of the Art Inst of Chicago	8.8	432
Lincoln Christian C	8.6	116
North Park C	8.6	420
Mchenry Co C	8.5	59
Judson C	8.5	177
Lake Land C	8.1	381
Roosevelt U	8.0	1,432
American Conserv of Music	7.7	39
Parks C of Saint Louis U	7.7	338
McKendree C	7.4	216
Lewis U	7.2	511
Monmouth C	7.1	212
Western Illinois U	6.9	2,516
Saint Mary of Nazareth Hosp Sch of Nursing	6.8	44
Illinois C	6.8	237
U of Illinois Chicago	6.7	2,975
Rosary C	6.5	275
Saint Xavier C	6.5	400
George Williams C	6.4	219
Knox C	6.4	220
Mundelein C	6.0	232
Southern Ill U Carbondale	5.9	4,723
MacMurray C	5.8	190
Millikin U	5.6	393
Olivet Nazarene U	5.6	536
United Med Ctr Sch of Nursing	5.6	36
Eureka C	5.5	146
Loyola U	5.4	2,196
Augustana C	5.0	675
William Rainey Harper C	4.9	247
Trinity C	4.8	228
Saint John's Hosp Sch of Nursing	4.8	63
Trinity Christian C	4.4	181
Greenville C	4.3	185
De Paul U	4.2	2,401
Illinois Inst of Tech	4.0	1,341
Concordia C	3.9	232
Illinois St U	3.8	3,800
C of Saint Francis	3.8	235
Eastern Illinois U	3.8	2,448
Illinois Benedictine C	3.5	367
National C of Ed	3.5	934
Barat C	3.4	117
Blackburn C	3.4	147
Saint Francis Med Ctr C of Nursing	3.4	59
North Central C	3.4	385
Spertus C of Judaica	3.3	30
Lake Forest C	3.3	211
Rockford C	3.3	273
Saint Joseph's Hosp Sch of Nursing	3.2	31
Aurora U	3.1	318
Elmhurst C	3.1	581
Northern Illinois U	3.0	4,797
Illinois Wesleyan U	3.0	462

ILLINOIS—Continued

Bradley U	2.9%	1,322
Saint Francis Hosp Sch of Nursing	2.8	36
Chicago C of Osteopathic Med	2.7	182
Lakeview Med Ctr Sch of Nursing	2.7	37
National C of Chiropractic	2.5	437
Northwestern U	2.1	2,193
Methodist Hosp of Central Ill Sch of Nursing	2.0	49
Mennonite C of Nursing	2.0	51
U of Chicago	1.9	2,162
U of Ill Urbana-Campaign	1.8	6,811
William Scholl C of Podiatric Med	1.7	301
John Marshall Law Sch	1.6	610
U of Illinois Med Ctr Chicago	1.6	950
Wheaton C	1.6	574
U of Chicago Sch of Med	1.1	184
Rush U	1.0	508
U of Health Sciences Chicago Med Sch	0.8	121
Trinity Evangelical Divinity Sch	0.6	157
Northwestern U Chicago	0.4	1,110
Illinois C of Optometry	0.2	452
Saint Anthony Hosp Sch of Nursing	0.0	40
Lutheran General Hosp Sch of Nursing	0.0	47
Ravenswood Hosp Sch of Nursing	0.0	55
Evangelical Sch of Nursing	0.0	55
Principia C	0.0	81
S Ill U Sch of Med	0.0	139
Loyola U Med Ctr Sch of Dentistry	0.0	216
Loyola U Strich Sch of Med	0.0	232

INDIANA

Ind Voc-Tech C Northwest	58.4%	863
Ind Voc-Tech C Muncie	31.1	238
Ind Voc-Tech C Mallory Tech Inst	30.0	543
Martin Center C	25.9	54
Indiana U Northwest	23.9	524
Ind Voc-Tech C Northeast	19.0	348
Ind Voc-Tech C Lincolnland	18.7	300
Ancilla Domini C	18.6	43
Calumet C	17.6	131
Indiana Voc-Tech C Madison	17.5	97
Indiana Voc-Tech C South Bend	15.9	126
Acme Inst of Tech	15.0	40
Ind Voc-Tech C White River	14.6	363
Professional Careers Inst	13.8	493
Indiana Voc-Tech C Wabash Valley	13.5	252
Indiana Inst of Tech	13.1	137
Indiana U East	11.4	79
Purdue U Calumet	11.0	672
Purdue U North Central	10.2	265
Oakland City C	8.9	213
Indiana St U	8.8	1,844
Ind Voc-Tech C North Central	8.1	123
Vincennes U	7.5	1,392
Indiana Wesleyan U	6.7	405
Marian C of Indianapolis	6.0	267
Saint Francis C	5.8	139
St Mary-of-the-Woods C	5.7	105
Huntington C	5.6	125
Anderson C	5.4	556
Indiana U South Bend	5.3	357
Purdue U Fort Wayne Ctr	5.3	794
Christian Theol Sem	5.3	38
Indiana U Indianapolis	5.2	1,960
Indiana U Kokomo	5.2	232
U of Indianapolis	5.1	391
Saint Elizabeth Hosp Med Ctr Sch Nursing	5.0	80
Ball St U	4.9	3,058
Franklin C	4.5	199
Hanover C	4.5	223
Butler U	4.4	528
Indiana U main campus	4.3	5,686
Indiana U Southeast	4.3	466
Saint Joseph's C main campus	4.0	225
Valparaiso U	3.8	962
Memorial Hosp Sch of Nursing	3.8	53
U of Southern Indiana	3.6	444
U of Evansville	3.4	697
Manchester C	3.3	274
Fort Wayne Bible C	2.9	105
Bethel C	2.7	111
Earlham C	2.5	244
Tri-State C	2.3	212
Purdue U main campus	2.2	4,786
Taylor U	1.9	312
Deaconess Hosp Sch of Nursing	1.9	53
Saint Mary's C	1.8	319
Saint Meinrad C	1.8	66
Goshen C	1.7	294
Wabash C	1.6	192

INDIANA—Continued

Rose-Hulman Inst of Tech	1.5%	388
U of Notre Dame	1.5	1,617
Grace Theol Sem and C	1.5	267
De Pauw U	1.4	370
Indiana U Sch of Med	0.9	437
Davenport C Ctr	0.0	31
Lutheran Hosp Sch of Nursing	0.0	37
Parkview-Methodist Sch of Nursing	0.0	52
Concordia Theol Sem	0.0	106
Indiana U Sch of Dentistry	0.0	149

IOWA

SE Iowa CC North	25.1%	271
Iowa Western CC Clarinda	21.1	152
Eastern Iowa CC central office	20.4	49
SE Iowa CC South	19.6	56
Eastern Iowa CC Scott	19.4	499
Western Iowa Tech CC	17.1	817
Iowa Western CC central office	16.9	658
Indian Hills CC	16.5	85
Kirkwood CC	16.3	1,544
Iowa Central CC Fort Dodge	14.7	682
Des Moines Area CC central office	13.9	1,364
Saint Joseph Mercy Hosp Sch of Nursing	13.3	75
Indian Hills CC	13.3	520
North Iowa Area CC	13.2	575
Clinton CC	13.0	324
Hawkeye Inst of Tech	12.8	841
Briar Cliff C	9.8	347
Iowa Central CC Webster City	9.5	42
Southwestern CC	9.4	254
Ellsworth CC	8.9	405
NE Iowa Voc-Tech Sch	8.6	421
Iowa Lakes CC South	8.5	527
Muscatine CC	8.5	129
Graceland C	8.4	298
Grand View C	8.0	363
Morningside C	7.8	358
Marshalltown CC	7.4	242
Simpson C	7.4	338
Westmar C	7.4	204
William Penn C	7.2	209
Marycrest C	6.7	284
American Inst of Business	6.5	460
Upper Iowa U	6.2	193
Iowa Wesleyan C	6.0	182
Mount Mercy C	5.8	292
U of Dubuque main campus	5.8	293
Northwest Iowa Tech C	5.7	261
Drake U	5.3	1,293
Cornell C	5.2	268
U of Northern Iowa	4.9	2,575
Saint Ambrose U	4.8	455
Coe C	4.7	276
Clarke C	4.5	200
Buena Vista C	4.3	695
U of Iowa	4.2	6,441
Iowa Methodist Hosp Sch of Nursing	4.0	50
Maharishi International U	4.0	226
Mount Saint Clare C	3.6	111
Wartburg C	3.6	363
Grinnell C	3.6	196
Loras C	3.4	474
Palmer C of Chiropractic	3.3	758
Waldorf C	3.2	219
Central U of Iowa	3.1	415
U of Osteopathic Med and Health Sciences	3.1	421
Iowa St U	3.0	5,001
Northwestern C	2.8	249
Faith Baptist Bible C	2.3	131
St Luke's Sch of Nursing	2.2	46
Wartburg Theol Sem	2.1	47
Dordt C	2.0	255
U of Iowa C of Med	1.9	267
Drake U C of Pharmacy	1.5	67
U of Iowa C of Dentistry	1.1	94
Luther C	1.0	500
Allen Memorial Hosp Sch of Nursing	0.0	34
Mercy Hosp Sch of Nursing	0.0	37
Saint Luke's Methodist Hosp Sch of Nursing	0.0	41
U of Iowa C of Pharmacy	0.0	83

KANSAS

Southeast Kansas Area Voc-Tech Sch	51.4%	70
Saint Mary of the Plains C	50.9	3,848
Donnelly C	50.7	306
Fort Scott CC	45.5	483
Kaw Area Voc-Tech Sch	40.5	173
Northeast Kansas Area Voc-Tech Sch	38.1	42
Coffeyville CC	36.5	178
Kansas City Area Voc-Tech Sch	36.5	85
Central Kansas Area Voc-Tech Sch	36.1	61
Flint Hills Area Voc-Tech Sch	34.8	66
Garden City CC	33.5	188

KANSAS—Continued

Wichita Area Voc-Tech Sch	32.8%	375
Independence CC	30.2	189
Wichita St U	28.5	2,424
Cowley Co CC	27.9	290
Kansas City Kansas CC	27.9	287
Barton Co CC	27.5	240
Pratt CC	26.8	138
Kansas Wesleyan U	26.6	312
Neosho Co CC	24.7	77
Salina Area Voc-Tech Sch	24.2	124
Allen Co CC	23.4	107
Manhattan Area Voc-Tech Sch	22.0	159
Butler Co CC	21.5	419
Southwestern C	20.3	197
Saint John's C	20.0	65
Southwest Kansas Area Voc-Tech Sch	19.6	51
Hutchinson CC	19.4	252
Sterling C	19.0	147
Saint Mary C	18.7	150
Dodge City CC	18.0	194
Seward Co CC	17.9	84
Highland CC	17.8	135
Liberal Area Voc-Tech Sch	17.5	57
Kansas Newman C	16.2	136
Northwest Kansas Area Voc-Tech Sch	15.9	232
Johnson Co CC	15.3	360
Colby CC	14.7	218
Central C	14.3	154
Bethel C	13.6	213
Pittsburg St U	13.0	1,024
Manhattan Christian C	10.9	46
Kansas C of Tech	10.7	140
Baker U	10.6	207
Labette CC	10.5	171
Marymount C	10.3	145
Washburn U of Topeka	9.8	1,229
Ottawa U	9.7	236
McPherson C	9.6	167
Emporia St U	9.5	797
Cloud Co CC	9.3	214
Tabor C	8.9	124
Hesston C	8.5	259
Bethany C	8.2	243
Fort Hays St U	7.8	919
North Central Kansas Voc-Tech Sch	7.6	277
Friends U	6.8	352
Mid-America Nazarene C	6.5	400
Kansas St U	6.3	3,424
U of Kansas	6.2	3,413
Benedictine C	6.2	210
U of Kansas C of Health	2.4	165
U of Kansas Sch of Med	1.7	238
Kansas St U C of Vet Med	0.0	85

KENTUCKY

Brannon Business Inst	40.6%	106
Laurel Co St Voc-Tech Sch	35.5	31
Jefferson St Voc-Tech Sch	29.5	44
Madisonville Health Occupations Sch	26.7	45
Central Ky St Voc-Tech Sch	24.5	53
Somerset Voc Sch	24.1	54
Rowan St Voc-Tech Sch	22.4	49
Ashland St Voc-Tech Sch	22.3	94
Mayo St Voc-Tech Sch	22.0	123
Kentucky St U	21.7	254
Bowling Green St Voc-Tech Sch	21.2	33
Pikeville C	21.1	133
Ashland CC	18.9	95
Sue Bennett C	16.9	59
Hopkinsville CC	16.7	42
W Ky St Voc-Tech Sch	15.3	111
Elizabethtown CC	14.8	108
Madisonville CC	14.6	48
Lexington Tech Inst	14.1	290
Lindsey Wilson C	14.0	200
Maysville CC	13.4	82
Paducah CC	12.8	141
Jefferson CC	12.7	166
Henderson CC	11.8	76
Union C	11.5	148
Prestonsburg CC	11.1	81
Somerset CC	10.8	74
Kentucky Christian C	9.7	154
Midway C	8.5	94
Morehead St U	8.3	715
Cumberland C	8.2	417
Transylvania U	7.9	89
Kentucky Wesleyan C	7.1	168
Hazard CC	6.7	30
Murray St U	6.6	1,075
Western Kentucky U	6.6	1,155
Eastern Kentucky U	6.3	1,627
Centre C of Kentucky	5.6	108
Campbellsville C	5.5	164
U of Louisville	5.2	1,759
Brescia C	5.1	79
Northern Kentucky U	4.7	533
U of Ky main campus	4.6	2,572
Berea C	3.2	95
Thomas More C	3.1	159
Georgetown C	2.3	262
Spalding U	1.8	163
Bellarmine C	1.7	293
Asbury C	1.0	202
U of Kentucky C of Med	0.9	114
Alice Lloyd C	0.0	32

KENTUCKY—Continued

U of Kentucky C of Dentistry	0.0%	83
Asbury Theol Sem	0.0	88
U of Louisville Sch of Dentistry	0.0	100
U of Louisville Med Health Sciences Ctr	0.0	128

LOUISIANA

Capitol Area Voc Sch	54.0%	126
Westside Voc-Tech Sch	53.1	32
New Orleans Regional Voc-Tech Inst	51.6	31
Lafayette Regional Voc-Tech Inst	50.8	65
Jefferson Parish Voc-Tech Sch	47.2	89
Slidell Voc-Tech Sch	47.2	53
Delta-Quachita Voc-Tech Inst	43.4	76
Sullivan Voc-Tech Inst	40.0	40
Southern U New Orleans	39.3	361
NW La Voc-Tech Sch	32.4	37
Southern U and A&M C Baton Rouge	30.0	2,489
Delgado CC	27.3	275
Baton Rouge Voc-Tech Inst	25.7	101
Dillard U	24.2	388
Southern U Shreveport	21.6	37
Alexandria Trade Sch	19.4	67
Sowela Tech Inst	17.7	79
U of SW Louisiana	17.6	1,401
Xavier U of Louisiana	16.6	543
Grambling St U	16.1	2,312
Southeastern Louisiana U	14.4	894
Northwestern St U	14.4	707
NE Louisiana St U	14.1	1,266
La St U New Orleans	13.0	1,870
Charity Hosp Sch of Nursing	12.4	97
Louisiana St U Alexandria	11.5	243
McNeese St U	11.0	566
T H Harris Voc-Tech Inst	9.9	71
Centenary C	9.6	136
Lousiana St U Baton Rouge	9.4	3,694
Ochsner Sch of Allied Health Sciences	9.4	32
Bossier Parish CC	9.1	44
Louisiana Tech U	8.3	1,355
Nicholls St C	8.3	435
Touro Infirmary Sch of Nursing	8.1	37
Our Lady of Holy Cross C	7.9	177
Loyola U	7.2	833
Lousiana St U Eunice	6.0	201
Louisiana C	5.7	157
Our Lady of the Lake Sch of Nursing	5.6	36
Tulane U	4.7	1,463
Lousiana St U Shreveport	3.3	391
NE Louisiana Voc Sch	3.3	30
La St U Sch of Dentistry	2.2	90
Lousiana St U C of Vet Med	2.1	48
Lousiana St U Med Ctr	1.6	243
Lousiana St U New Orleans Sch of Med	0.9	216
La St U Shreveport Sch of Med	0.9	117
Tulane U Sch of Med	0.7	142

MAINE

U of Maine Augusta	12.4%	339
Northern Maine Voc-Tech Inst	10.8	223
U of Maine Machias	9.9	161
Southern Maine Voc-Tech Inst	9.5	284
U of Maine Presque Isle	8.3	254
Washington Co Voc-Tech Inst	8.1	111
Bangor Theol Sem	7.1	42
Portland Sch of Art	6.3	80
U of Southern Maine	6.0	1,511
Husson C	5.9	389
Unity C	5.7	88
Central Me Voc-Tech Inst	5.4	149
C of the Atlantic	5.3	38
U of Maine Fort Kent	5.2	115
Eastern Me Voc-Tech Inst	5.1	217
Thomas C	4.3	185
U of Maine Orono	4.3	2,746
Kennebec Valley Voc-Tech Inst	3.7	81
Bowdoin C	3.5	226
Saint Joseph's C	3.2	349
Westbrook C	3.1	255
Central Maine Med Ctr Sch of Nursing	2.9	34
U of New England	2.9	244
U of Maine Farmington	2.8	461
Colby C	2.7	262
Nasson C	2.6	38
Bates C	2.1	243
New England C of Osteopathic Med	0.8	118
Maine Maritime Acad	0.6	163
Saint Mary's General Hosp Sch of Nursing	0.0	31

MARYLAND

Sojourner-Douglas C	42.8%	598
CC of Baltimore	32.9	477
Dundalk CC	30.7	137
Morgan St C	24.2	965
Wor-Wic Tech CC	23.4	77
Coppin St C	23.3	309
Bowie St C	20.3	359
Catonsville CC	18.9	509
U of Md Eastern Shore	18.2	335
Prince George's CC	17.5	572
Garrett CC	17.4	92
Howard CC	16.5	127
Harford CC	16.3	129
Chesapeake C	15.9	44
Frederick CC	15.3	111
Montgomery C	15.1	1,069
Essex CC	12.9	318
Capitol C	11.9	236
Anne Arundel CC	11.6	267
Villa Julie C	10.3	223
Allegany CC	9.8	287
U of Maryland U C	9.5	947
Columbia Union C	8.8	260
C of Notre Dame of Md	8.7	150
Baltimore's International Culinary Art Inst	7.4	135
Maryland Inst C of Art	7.2	221
Charles Co CC	6.8	73
U of Baltimore	6.8	650
Towson St C	6.4	1,515
U of Maryland Baltimore Co	6.3	895
Peabody Conservatory of Music	6.1	82
Salisbury St C	5.9	625
Frostburg St C	5.2	654
St Mary's C of Maryland	5.1	215
U of Maryland C Park	5.0	4,835
Hagerstown JC	5.0	100
St John's C	4.9	143
Washington Bible C	4.7	43
Hood C	4.4	271
Loyola C	3.9	557
Johns Hopkins U Sch of Hygiene & Public Health	3.9	128
Washington C	3.9	154
Goucher C	3.0	233
U of Maryland Baltimore Professional Schs	3.0	1,134
Johns Hopkins U	2.6	660
Johns Hopkins U Sch of Med	2.1	142
Western Maryland C	2.1	380
Mount Saint Mary's C	2.0	254
Cecil CC	0.0	43

MASSACHUSETTS

Roxbury CC	29.0%	145
Cambridge C Inst of Open Ed	18.9	190
Springfield Tech CC	17.2	424
Massasoit CC	17.0	429
Bay St JC of Business	16.8	279
Women's Tech Inst	15.9	88
Quincy JC	15.3	249
Northern Essex CC	15.2	322
Bunker Hill CC	15.2	158
Essex Ag and Tech Inst	14.8	54
Newbury C	14.1	725
Cape Cod CC	13.9	245
Bristol CC	13.6	279
Atlantic Union C	13.5	141
Fisher JC	13.0	455
Quinsigamond CC	12.9	310
Holyoke CC	12.2	296
NE Inst of Industrial Tech	12.1	265
Greenfield CC	11.4	201
Chamberlayne JC	11.3	231
Mount Wachusett CC	10.9	257
U of Massachusetts Boston	10.5	1,416
Central New England C of Tech	10.4	337
Bradford C	10.3	58
Swain Sch of Design	10.3	66
Pine Manor JC	10.2	59
Catherine Laboure C	10.1	178
Middlesex CC	10.1	218
Mount Ida C	10.0	291
Art Inst of Boston	9.9	91
Berklee Sch of Music	9.6	540
Boston Architectural Ctr	9.5	116
North Shore CC	9.5	264
Berkshire CC	9.5	201
Worcester Industrial Tech Inst	9.4	32
New England Sch of Art and Design	8.8	34
New England Sch of Accounting	8.5	47
American International C	8.3	372
Wentworth Tech Sch	8.1	271
Worcester St C	8.1	[illegible]
Berkshire Christian C	7.9	38
Lasell JC	7.8	141
Hampshire C	7.1	198
Southeastern Mass U	7.0	845
Eastern Nazarene C	6.6	229
Northeastern U	6.5	4,356
Massachusetts C of Art	6.4	234
Curry C	6.3	192
Emerson C	6.2	500
Simon's Rock of Bard C	6.2	97

MASSACHUSETTS—Continued

Dean JC	6.2%	356
Massachusetts Bay CC	6.0	182
Salem St C	5.9	675
Wentworth Inst of Tech	5.8	942
Becker JC	5.8	432
Anna Maria C	5.7	158
Clark U	5.6	408
Emmanuel C	5.6	126
Boston Conservatory of Music	5.4	93
Endicott JC	5.2	212
New England Deaconess Hosp Sch of Nursing	5.1	39
Newton-Wellesley Hosp Sch of Nursing	5.1	39
Mass C of Pharmacy	5.1	158
Fitchburg St C	4.9	587
Franklin Inst of Boston	4.9	142
Westfield St C	4.9	468
Springfield C	4.9	551
SE Regional Tech Inst	4.9	41
U of Mass Amherst	4.8	4,397
Assumption C	4.4	339
Aquinas JC of Business	4.4	91
Framingham St C	4.4	434
Bridgewater St C	4.4	777
Saint Elizabeth's Hosp Sch of Nursing	4.3	46
Gordon-Conwell Theol Sem	4.3	93
Boston U	4.2	4,167
Nichols C	4.1	169
Gordon C	4.1	291
Regis C	4.1	123
Blue Hills Regional Tech Inst	4.0	50
Suffolk U	3.8	1,316
U of Lowell	3.8	1,213
Lesley C	3.8	608
New England Conserv of Music	3.8	160
Sch of the Museum of Fine Arts	3.7	81
Simmons C	3.6	556
Brandeis U	3.2	620
Williams C	3.1	288
Harvard Medical Sch	3.0	33
North Adams St C	3.0	364
Wheaton C	2.8	214
MGH Inst of Health Professions	2.8	36
Mount Holyoke C	2.7	335
Amherst C	2.6	227
C of Our Lady of the Elms	2.6	115
Smith C	2.6	507
Framingham Union Hosp Sch of Nursing	2.5	40
New England Inst of Applied Arts & Sciences	2.5	40
U of Mass Medical Sch Worcester	2.5	80
Bentley C	2.5	928
Andover Newton Theol Sch	2.4	41
Mass Maritime Acad	2.4	169
Western New England C	2.3	768
Tufts U Sch of Dental Med	2.3	131
Babson C	2.3	394
Wellesley C	2.3	308
Harvard U	2.2	2,240
Wheelock C	2.2	135
Bay Path C	2.1	242
Boston C	2.0	1,982
Tufts U	2.0	796
Marian Court JC	2.0	50
Merrimack C	2.0	404
New England Sch of Law	1.9	267
Aquinas JC of Business	1.8	56
Mass Inst of Tech	1.5	1,223
Radcliffe C	1.5	205
C of the Holy Cross	1.4	419
Stonehill C	1.1	348
Harvard Law Sch	0.9	424
New England C of Optometry	0.9	108
Tufts U Sch of Medicine	0.8	250
Worcester Polytech Inst	0.5	432
Lawrence Memorial Hosp Sch of Nursing	0.0	31
Mass Sch of Professional Psych	0.0	32
Saint Vincent Hosp Sch of Nursing	0.0	42
Boston U Sch of Med	0.0	43
Forsyth Sch of Dental Hygienists	0.0	50
New England Baptist Hosp Sch of Nursing	0.0	50
N Bennet Street Sch	0.0	52
Tufts U Sch of Vet Med	0.0	53
Harvard Graduate Sch of Business Admin	0.0	567

MICHIGAN

Detroit Inst of Commerce	68.5%	682
Wayne County CC	51.6	407
Highland Park CC	49.8	303
Lewis Business C	47.4	76
Jordan C	43.4	910
Jackson Business Inst	34.0	141
Kalamazoo Valley CC	33.8	521
Washtenaw CC	28.8	299

Continued on Following Page

FACT FILE: Student-Loan Default Rates at More Than 3,200 Institutions—Continued

MICHIGAN—Continued

Marygrove C	24.5%	278
Suomi C	23.7	435
Lake Michigan C	22.0	109
Kellogg CC	21.3	221
Bay De Noc CC	21.0	315
Henry Ford CC	20.4	461
Cleary C	20.2	99
Olivet C	16.9	159
Davenport C of Business	18.7	1,574
Lansing CC	17.0	610
Muskegon Business C	16.9	338
Oakland CC	16.2	463
Southwestern Michigan C	14.1	205
Alpena CC	14.1	156
Macomb County CC	13.7	153
Michigan Christian JC	13.6	118
West Shore CC	13.2	68
Northwood Inst	12.9	443
Gogebic CC	12.5	144
Wayne St U	11.9	1,802
Madonna C	11.9	270
Glen Oaks CC	11.6	43
Charles S Mott CC	11.5	270
Mercy C of Detroit	10.7	365
Ctr for Creative Studies C of Art & Design	10.6	142
Eastern Michigan U	10.2	2,026
Baker JC of Business	10.2	315
Kirtland CC	10.1	129
Muskegon CC	10.0	180
U of Detroit	9.6	738
Schoolcraft C	9.3	118
Siena Heights C	9.3	247
Great Lakes JC of Business	9.2	130
Northern Michigan U	8.9	1,275
Delta C	8.9	497
Saginaw Valley C	8.5	517
Montcalm CC	8.3	84
Jackson CC	8.3	108
Grand Rapids JC	8.2	526
Grace Bible C	8.1	37
Grand Rapids Sch of Bible and Music	7.5	53
Western Michigan U	7.5	2,762
Andrews U	7.4	698
Ferris St C	7.0	2,167
Mid Michigan CC	6.7	178
U of Michigan Sch of Public Health	5.9	34
Macomb County CC Ctr	5.6	72
U of Michigan Dearborn	5.5	433
Walsh C of Accountancy and Business Admin	5.2	135
Oakland U	5.0	816
Adrian C	4.7	279
Aquinas C	4.5	403
Michigan St U	4.4	5,294
St Clair County CC	4.4	205
Concordia Lutheran JC	4.3	115
Spring Arbor C	4.2	306
Detroit C of Law	4.2	261
U of Michigan Medical Sch	4.1	169
North Central Michigan C	4.1	97
Grand Valley St C	4.1	738
Great Lakes Bible C	4.0	50
Kendall Sch of Design	3.9	180
Michigan St U C of Human Med	3.9	129
Nazareth C	3.8	130
Lawrence Inst of Tech	3.8	529
Hillsdale C	3.6	137
Thomas M Cooley Law Sch	3.5	611
U of Michigan Flint	3.6	337
Central Michigan U	3.5	2,832
Kalamazoo C	3.1	228
Albion C	3.0	263
Grand Rapids Baptist C and Sem	2.8	253
Monroe County CC	2.7	73
U of Michigan Ann Arbor	2.7	4,634
Lake Superior St U	2.6	381
Northwestern Michigan C	2.2	223
Hope C	2.1	477
Michigan St U C of Osteopathic Med	2.1	194
U of Michigan Sch of Dentistry	2.0	150
Wayne St U Sch of Med	2.0	252
Calvin C	1.5	717
Michigan Tech U	1.4	1,185
Alma C	1.2	254
Michigan St U C of Vet Med	1.1	95
Hurley Hosp Sch of Nursing	0.0	31
Bronson Methodist Hosp Sch of Nursing	0.0	40

MINNESOTA

Pine Tech Inst	37.7%	154
Rainey River CC	33.8	77
Bemidji Area Voc-Tech Inst	33.2	244
E Grand Forks Area Voc-Tech Inst	31.8	444
Brainerd Tech Inst	30.6	468
Minneapolis Area Voc-Tech Inst	29.8	1,256
Minneapolis CC	29.4	687
Eveleth Tech Inst	28.8	198
Faribault Tech Inst	28.2	209

MINNESOTA—Continued

Thief River Falls Area Voc-Tech Inst	24.4%	336
Moorhead Tech Inst	22.9	503
Duluth Tech Inst	22.8	588
Detroit Lakes Tech Inst	22.7	449
Mesabi CC	22.4	165
St Paul Tech-Voc Inst	22.4	1,028
Austin Area Voc-Tech Inst	21.6	296
Northland CC	21.2	226
Wadena Tech Inst	20.8	399
Tech Inst of Hutchinson	20.7	276
Albert Lea Area Voc-Tech Inst	20.5	283
Anoka Area Voc-Tech Inst	20.2	749
Worthington CC	19.5	174
Anoka-Ramsey CC	19.1	517
Red Wing Area Voc-Tech Inst	18.9	243
Rochester Area Voc-Tech Inst	18.3	328
Mankato Tech Inst	17.8	518
Willmar Area Voc-Tech Inst	17.7	654
Brainerd CC	17.7	265
916 Area Voc-Tech Inst	17.2	390
Dakota Co Area Voc-Tech Inst	17.0	705
Minneapolis C of Art and Design	16.6	205
Staples Tech Inst	16.6	314
Hibbing CC	16.2	197
Jackson Area Voc-Tech Inst	16.1	286
Pipestone Area Voc-Tech Inst	15.9	208
Itasca CC	15.1	119
Winona Area Voc-Tech Inst	15.0	226
St Cloud Area Voc-Tech Inst	14.7	727
Suburban Hennepin Area Voc-Tech Sch	14.4	888
Austin CC	14.3	147
Golden Valley Lutheran C	13.9	144
Normandale CC	13.3	490
U of Minnesota Tech Inst Crookston	13.1	320
Fergus Falls CC	12.9	132
Hibbing Tech Inst	12.7	245
Rochester CC	12.5	559
Dunwoody Industrial Inst	12.0	309
Bemidji St U	11.7	1,062
Lakewood CC	11.2	392
Metropolitan St U	11.2	260
Canaby Area Voc-Tech Inst	10.7	131
North Hennepin CC	10.5	362
Willmar CC	10.3	341
North Central Bible C	10.2	430
Granite Falls Area Voc-Tech Inst	10.2	236
Pillsbury Baptist Bible C	10.1	89
Saint Mary's JC	9.6	322
NW Electronics Inst	9.5	325
Alexandria Area Voc-Tech Inst	9.3	719
Sch of the Associated Arts	9.3	43
Saint Luke's Hosp Sch of Nursing	9.1	44
Vermillion CC	9.1	220
Inver Hills CC	9.0	288
U of Minnesota Morris	7.8	463
Winona St U	7.5	1,102
U of Minnesota Duluth	6.7	1,608
U of Minnesota Twin Cities	6.6	8,590
Mankato St U	6.5	2,336
C of Saint Scholastica	6.4	451
U of Minnesota Waseca	5.9	256
Concordia C Saint Paul	5.7	367
Bethany Lutheran C	5.6	124
Macalester C	5.5	329
St Cloud St U	5.4	2,435
Northwestern C	5.1	257
SW Minnesota St C	5.0	505
Augsburg C	4.9	492
C of Saint Teresa	4.8	124
United Theol Sem of the Twin Cities	4.8	42
Moorhead St U	4.8	1,681
Concordia C Moorhead	4.3	629
Hamline U	4.2	718
Mayo Medical Sch	3.9	51
Saint Paul Bible C	3.6	196
Saint Benedict's C	3.4	469
St Cloud Hosp Sch of Nursing	3.2	31
C of Saint Catherine	3.2	592
Saint Mary's C	3.1	325
Dr Martin Luther C	2.7	75
Saint Olaf C	2.4	660
C of Saint Thomas	2.4	1,134
Gustavus Adolphus C	2.3	487
Bethel C	2.1	616
Saint John's U	2.1	434
Carleton C	1.7	354
William Mitchell C of Law	1.3	453
Luther Theol Sem	1.3	157
NW C of Chiropractic Med	0.6	313
Fairview Deaconess Hosp Sch of Nursing	0.0	31
Mayo Clinic Sch of Physical Therapy	0.0	36
Bethel Theol Sem	0.0	86

MISSISSIPPI

Rust C	51.9%	160
Tougaloo C	24.3	181
Mississippi Gulf Coast C	13.4	209
Jackson St C	6.9	1,115
Copiah-Lincoln JC	6.8	74
Southwest Mississippi JC	6.6	61
Jones Co JC	6.4	188
Mary Holmes C	6.1	181
William Carey C	4.7	170
East Mississippi JC	4.6	87
Pearl River JC	4.3	117
Alcorn St U	3.4	235
Mississippi Gulf Coast JC	3.0	33
Mississippi Valley St C	3.0	298
Holmes CC	2.9	69
Mississippi Gulf Coast JC Jackson Co	2.5	198
Northwest Mississippi CC	2.5	198
Belhaven C	2.5	120
Millsaps C	2.2	183
U of Miss Med Ctr	1.6	125
U of Southern Mississippi	1.6	1,566
Delta St C	1.6	316
Blue Mountain C	1.5	65
East Central CC	1.5	66
Hinds JC	1.3	535
Mississippi St U	1.3	1,225
Mississippi C	1.1	450
Mississippi U for Women	1.0	201
U of Mississippi	0.9	1,267
Northeast Mississippi JC	0.5	221
Itawamba JC	0.4	283
U of Mississippi Med Ctr Sch of Dentistry	0.0	42
Mississippi Delta JC	0.0	77
U of Mississippi Med Ctr Sch of Med	0.0	102
Meridian CC	0.0	115

MISSOURI

Tarkio C	75.6%	2,708
Kansas City Tech Ed Ctr	41.9	31
Missouri Valley C	41.8	591
Penn Valley CC	34.0	544
Columbia Area Voc-Tech Sch	33.3	30
Harris-Stowe St C	28.9	83
St Louis CC Forest Park	27.6	370
Franklin Tech Sch	23.3	30
Nichols Career Ctr	23.1	65
Rolla Area Voc-Tech Sch	23.0	74
Mineral Area C	22.7	300
Kirksville Area Voc-Tech Sch	22.6	31
State Fair CC	22.2	126
Crowder C	19.5	384
Lincoln U	19.5	384
O'Fallon Tech Ctr	18.3	71
Kemper Military Sch and C	18.1	72
Sikeston Public Sch Area Voc-Tech Sch	18.0	50
Moberly JC	16.7	126
Three Rivers CC	15.7	185
Longview CC	14.4	181
Baptist Bible C	14.3	244
Park C	14.2	387
Platte Co Area Voc-Tech Sch	13.9	36
Columbia Area Career Ctr	13.6	44
Jewish Hosp Sch of Nursing	12.7	71
East Central JC	12.6	143
Missouri Baptist C St Louis	12.5	80
Jefferson C	11.9	176
Hannibal-LaGrange C	10.9	175
Linn Tech JC	10.8	157
Lindenwood C	10.8	287
Missouri Southern St C	10.3	389
St Louis CC Meramec	10.2	255
Maple Woods CC	10.1	79
Saint Mary's C of O'Fallon	10.1	169
Central Missouri St U	10.0	1,483
Kansas City Art Inst	9.8	164
Clayton U	9.6	83
Southwest Baptist U	9.6	510
Columbia C	9.4	393
Southeast Missouri St C	9.2	1,497
St Paul Sch of Theol	9.1	33
Deaconess Hosp Sch of Nursing	8.9	56
St Louis CC Florissant Valley	8.4	286
Stephens C	8.4	167
Missouri Western St C	8.3	575
Willard J Graff Area Voc-Tech Ctr	8.3	60
Wentworth Military Acad	7.9	38
North Central Missouri C	7.9	127
Webster U	7.8	591
U of Missouri Kansas City	6.8	1,435
Central Bible C	6.7	225
Maryville C	6.6	347
Culver-Stockton C	6.5	199
Central Methodist C	6.4	188
U of Missouri St Louis	6.2	842
Northwest Missouri St U	5.9	951
Fontbonne C	5.8	171
William Jewell C	5.2	308
Evangel C	5.0	525
Avila C	4.9	224
Barnes Hosp Sch of Nursing	4.8	62

MISSOURI—Continued

Rockhurst C	4.7%	468
Southwest Missouri St U	4.6	1,940
Ranken Tech Inst	4.5	176
Saint Louis U main campus	4.5	2,140
Ozark Christian C	4.4	91
U of Missouri Columbia	4.2	3,972
U of Missouri Sch of Med	4.0	75
Drury C	3.9	255
William Woods C	3.9	129
Cleveland Chiropractic C	3.9	336
Midwestern Baptist Theol Sem	3.8	80
Sch of the Ozarks	3.5	113
Northeast Missouri St U	3.3	1,015
Saint John's Sch of Nursing	3.2	62
Logan C of Chiropractic Med	2.9	419
Washington U	2.7	1,935
Westminster C	2.6	114
Concordia Sem	2.5	121
U of Missouri Rolla	2.4	1,096
Assemblies of God Theol Sem	2.4	85
Nazarene Theol Sem	2.1	96
Washington U Sch of Med	2.1	144
U of Mo Sch of Dentistry	0.9	106
St Louis C of Pharmacy	0.7	153
Kirksville C of Osteopathic Med	0.4	284
Missouri Baptist Hosp Sch of Nursing	0.0	33
Saint Luke's Hosp Sch of Nursing	0.0	39
Research C of Nursing	0.0	50
Calvary Bible C	0.0	68

MONTANA

Salish Kootenai CC	40.2%	82
Dawson C	32.8	58
Missoula Voc-Tech Ctr	31.1	212
Billings Voc-Tech Ctr	31.1	177
Flathead Valley CC	28.2	174
Butte Voc-Tech Ctr	27.7	184
Great Falls Voc-Tech Ctr	23.1	160
Miles CC	23.1	156
Helena Voc-Tech Ctr	21.0	315
Northern Montana C	17.1	510
Rocky Mountain C	12.1	173
U of Montana	10.7	1,864
Carroll C	10.7	224
Eastern Montana C	9.8	794
Montana St U	9.3	2,287
Western Montana C	7.2	264
Montana C of Mineral Sciences and Tech	5.8	258
C of Great Falls	5.5	330

NEBRASKA

Metropolitan Tech CC	31.5%	777
Central CC	25.9	170
Central Nebraska Tech CC	20.6	339
Western Nebraska CC	19.6	230
McCook Tech CC	18.8	80
Western Nebraska Tech CC	17.0	112
Bellevue C	16.7	420
Lincoln Tech CC	15.5	711
Mid Plains CC	14.5	214
York C	13.5	170
Chadron St C	12.8	407
Nebraska Christian C	12.8	47
Southeast CC	10.3	39
Northeast Neb Tech CC	9.8	366
U of Nebraska Omaha	9.2	2,000
Peru St C	8.2	267
Southeast CC Milford	8.0	361
Wayne St C	7.2	586
Hastings C	7.1	212
C of Saint Mary	6.9	277
Kearney St C	6.5	1,294
Midland Lutheran C	6.5	262
Concordia Teachers C	6.3	222
Doane C	6.1	244
U Nebraska Lincoln	5.6	4,107
Union C	5.5	273
U of Neb Sch of Tech Ag	5.3	75
Platte Tech CC	5.2	154
Nebraska Wesleyan U	4.9	309
Creighton U	4.3	1,194
Mary Lanning Memorial Hosp Sch of Nursing	4.2	48
Grace C of the Bible	3.5	57
Creighton U Sch of Pharmacy	3.3	121
West Nebraska General Hosp Sch of Nursing	3.2	31
Dana C	3.1	196
Bryan Memorial Hosp Sch of Nursing	2.9	68
Bishop Clarkson C	2.7	74
U of Neb C of Pharmacy	1.5	66
Neb Methodist C of Nursing & Allied Health	1.4	70
Creighton U Sch of Med	1.3	227
U of Neb C of Dentistry	1.1	94
U of Nebraska Med Ctr Sch of Med	0.9	233
Creighton U Boyne Sch of Dental Science	0.0	145

NEVADA

Old C	25.0%	40
Clark County CC	24.2	178
Western Nevada CC	21.4	56
Truckee Meadows CC	14.8	155
Sierra Nevada C	14.8	61
U of Nevada Las Vegas	13.5	968
U of Nevada Reno	7.4	1,015

NEW HAMPSHIRE

Concord Hosp Sch of Nursing	9.4%	32
New England C	9.0	178
Notre Dame C	9.0	156
New Hampshire C	7.7	905
Franklin Pierce C	6.9	509
Hawthorne C	6.7	178
NH Voc-Tech C Manchester	6.5	139
Merrimack Valley C	6.3	48
NH Voc-Tech C Claremont	6.0	117
Plymouth St C	6.0	719
Daniel Webster C	5.9	152
NH Voc-Tech Portsmouth	5.2	77
New Hampshire Tech Inst	5.0	279
Colby-Sawyer C	4.6	87
Keene St C	4.4	813
Rivier C	3.9	152
NH Voc-Tech C Berlin	3.7	109
NH Voc-Tech C Laconia	3.6	84
U of New Hampshire	3.0	2,063
Saint Anselm's C	2.9	385
Dartmouth C Med Sch	2.4	83
Dartmouth C	1.8	795
NH Voc-Tech C Nashua	1.7	58
Franklin Pierce Law Ctr	1.6	190

NEW JERSEY

Passaic Co CC	28.2%	124
Essex Co C	26.1	349
Hudson Co CC	24.5	147
Jersey City St C	19.7	467
Cumberland Co C	18.8	154
Bloomfield C	18.1	248
Salem CC	17.1	41
Mercer Co CC	16.6	391
Gloucester Co C	15.6	173
Atlantic CC	15.1	272
Ocean Co C	14.4	313
Fairleigh Dickinson U Edward Williams C	13.6	184
Brookdale CC	13.2	265
Camden Co C	13.1	183
Burlington Co C	11.7	197
Kean C of New Jersey	11.3	795
Caldwell C	11.2	98
Northeastern Bible C	11.1	36
Saint Peter's C	11.0	436
Union Co C	10.7	234
Middlesex Co C	10.6	501
Glassboro St C	10.1	1,030
Upsala C	10.1	288
Ramapo C of New Jersey	9.6	446
West Jersey Hosp Sch of Nursing	8.8	34
Monmouth Co Voc Sch	8.1	37
Muhlenberg Regional Med Ctr Sch of Nursing	8.1	37
Elizabeth General Med Ctr Sch of Nursing	7.8	51
Richard Stockton St C	7.7	742
Rutgers U Newark	7.6	865
Rutgers U Camden	7.6	526
County C of Morris	7.5	414
Seton Hall U	7.4	1,102
William Paterson C	7.0	781
Georgian Court C	7.0	185
Monmouth C	6.9	509
Montclair St C	6.6	1,294
Centenary C	6.3	158
Holy Name Hosp Sch of Nursing	6.1	33
Fairleigh Dickinson U Teaneck	6.0	749
New Jersey Inst of Tech	5.7	565
Trenton St C	5.6	1,041
Drew U	5.2	405
Somerset Co C	5.1	136
Fairleigh Dickinson U main campus	5.0	357
Rutgers U New Brunswick	5.0	4,442
Bergen CC	5.0	302
Westminster Choir C	4.3	115
Rutgers Med Sch Camden	3.8	52
Rutgers Med Sch	3.7	190
New Jersey Sch of Osteopathic Med	3.6	83
Ann May Sch of Nursing	3.2	31
New Jersey Dental Sch	3.2	93
Fairleigh Dickinson U Madison	3.0	400
New Jersey Med Sch	2.8	249
Seton Hall U Sch of Law	2.8	323
Rider C	2.5	672
Stevens Inst of Tech	2.5	439
Felician C	2.0	50
C of Saint Elizabeth	2.0	100
Princeton U	1.3	833

NEW MEXICO

New Mexico JC	31.9%	186
New Mexico Voc-Tech Inst	18.8	48
Luna Voc-Tech Inst	18.2	159

NEW MEXICO—Continued

Northern New Mexico CC	14.6%	48
San Juan C	13.4	142
Santa Fe CC	13.3	45
Eastern NM U Clovis	12.2	82
Eastern NM U Portales	11.6	639
New Mexico Highlands U	11.1	469
Eastern NM U Roswell	10.5	76
Albuquerque Voc-Tech Inst	10.3	561
New Mexico Military Inst	9.8	51
Western New Mexico U	9.4	192
C of Santa Fe	8.8	205
U of Albuquerque	7.8	333
NM St U Alamogordo	7.1	56
Saint John's C	4.7	106
NM Inst of Mining and Tech	4.5	202
NM St U Las Cruces	4.3	1,681
U of New Mexico	3.9	3,152
U of NM Sch of Med	0.0	91

NEW YORK

CUNY Bronx CC	34.2%	871
Hostos CC	30.2	795
Medaille C	28.6	350
CUNY Medgar Evers C	27.1	332
SUNY Ulster Co CC	26.4	329
CUNY Borough of Manhattan CC	26.0	1,680
CUNY John Jay C of Criminal Justice	25.3	807
Traphagen Sch of Fashion	23.8	63
Marymount Manhattan C	23.5	489
Mercy C	21.9	1,225
C of New Rochelle	21.8	1,105
Erie CC City	21.8	501
Boricua C	21.6	194
Saint Francis C	21.6	490
Nassau Co Sch of Practical Nursing	21.6	102
CUNY New York City CC	21.0	1,341
CUNY York C	20.9	440
CUNY La Guardia CC	20.3	708
Rochester Sch of Practical Nursing	20.0	30
Mater Dei C	19.5	174
Fulton-Montgomery CC	19.0	305
SUNY C at Old Westbury	18.8	574
Nassau Co Practical Nursing Program	18.8	48
American Acad of Dramatic Arts	18.3	93
NY Sch of Computer Tech	18.2	44
CUNY Queensboro CC	17.8	849
Long Island U Conolly C	17.5	1,852
Syrit Computer Sch Systems	17.1	35
Westchester CC	17.1	350
Jamestown CC	16.9	623
CC of the Finger Lakes	16.8	612
CUNY Lehman C	16.7	941
CUNY Brooklyn C	16.6	1,290
American Musical and Dramatic Acad	16.5	115
American Acad McAllister Inst of Funeral Service	16.4	67
NY Sch of Interior Design	16.3	92
Elizabeth Seton C	16.3	552
Tompkins-Cortland CC	15.9	578
Central Tech HS Practical Nursing Program	15.6	32
Russell Sage JC Albany	15.3	320
Ailey American Dance Ctr	15.2	33
Schenectady Co CC	15.0	380
Orange Co CC	14.9	718
CUNY Staten Island CC	14.7	1,020
Sullivan Co CC	14.3	371
CUNY City C	14.3	1,415
Pace U New York City	13.9	2,204
Columbia-Greene CC	13.9	158
Touro C	13.7	553
Suffolk CC	13.6	1,382
SUNY Corning CC	13.2	622
CUNY Kingsborough CC	13.2	607
Parsons Sch of Design	13.2	425
SUNY Empire St C	13.2	691
Onondaga CC	13.0	922
C of Aeronautics	12.8	250
Genesee CC	12.5	433
Dutchess CC	12.5	409
C for Human Services	12.4	314
SUNY Mohawk Valley CC	12.4	1,418
Villa Maria C of Buffalo	12.3	220
Cayuga Co CC	12.2	360
Adirondack CC	12.0	383
North Country CC	12.0	317
CUNY Hunter C	11.8	1,385
Monroe CC	11.8	1,181
Catholic Med Ctr Brooklyn Queens Sch of Nursing	11.8	34
Mount Saint Mary C	11.7	257
Broome CC	11.6	869
Nassau CC	11.5	1,726
Interfaith Med Ctr Sch of Nursing	11.4	35
Colgate Rochester Divinity Sch	11.3	53
CUNY Queens C	10.6	1,539
SUNY C New Paltz	10.6	1,343
CUNY Baruch Sch of Business	10.6	1,108
Niagara Co CC	10.6	654
Oswego Co Adult Careers Ctr	10.5	38
Columbia U Sch of General Studies	10.5%	496
Juilliard Sch	10.4	164
SUNY C Purchase	10.2	440
Hudson Valley CC	10.1	1,437
SUNY A&T C Farmingdale	10.1	985
NY Inst of Tech NYC	10.0	2,429
NY U Med Ctr Respiratory Therapy Training Pgm	10.0	30
Friends World C	9.8	51
Mid-Westchester Program of Practical Nursing	9.7	31
Wagner C	9.5	462
Bard C	9.5	200
Jefferson CC	9.5	285
Rockland CC	9.4	939
Erie Co Dist One Practical Nursing Program	9.1	33
Mannes C of Music	9.1	44
CUNY Baruch C	8.9	146
Dowling C	8.8	622
New Sch for Social Research	8.8	950
Daemen C	8.6	525
Manhattanville C	8.4	214
Circle in the Square Sch	8.3	36
Buffalo General Hosp Sch of Nursing	8.2	61
Clinton Co CC	8.0	237
Our Lady of Victory Secretarial Sch	7.8	51
Wilson Tech Ctr	7.7	52
Hilbert C	7.5	159
D'Youville C	7.5	411
Pratt Inst	7.4	881
Erie CC South	7.3	450
Long Island U Brooklyn	7.3	41
Fordham U	7.2	2,324
Herkimer Co CC	7.2	432
Long Island U Southampton	7.1	337
SUNY C Buffalo	6.9	2,060
Molloy C main campus	6.9	274
SUNY C Brockport	6.9	1,775
Kings C	6.8	219
C of Insurance	6.8	44
Erie CC North	6.8	944
SUNY A&T C Delhi	6.7	835
Cochran Sch of Nursing	6.7	30
Keuka C	6.6	151
Elmira C	6.5	367
Cattaraugus Co Sch of Practical Nursing	6.3	48
SUNY A&T C Canton	6.2	861
Fashion Inst of Tech	6.1	1,058
Niagara U	6.1	691
Long Island U C W Post	6.1	1,797
Adelphi U	6.0	2,203
Crouse-Irving Hosp Sch of Nursing	5.9	101
Nyack C	5.9	188
New York U	5.8	6,495
SUNY A&T C Morrisville	5.8	1,025
Utica C	5.7	455
Maria C of Albany	5.7	193
Concordia C	5.6	107
Columbia U Sch of Social Work	5.5	252
Marymount C	5.4	257
Canisius C	5.4	868
Cope Inst	5.2	58
C of Saint Rose	5.1	569
Trocaire C	5.0	260
SUNY St U Stony Brook	5.0	2,277
SUNY C Utica Rome	4.9	466
Long Island U	4.9	61
Polytechnic Inst of NY	4.9	715
Saint Joseph's C	4.9	308
Cooper Union	4.9	103
SUNY C Oswego	4.8	1,757
SUNY Buffalo	4.8	4,533
Saint John Fisher C	4.8	502
Saint John's U	4.8	2,975
Dominican C of Blauvelt	4.8	189
SUNY C Fredonia	4.7	1,163
CUNY Grad Sch & U Ctr	4.7	213
SUNY C of Ag Cornell U	4.6	109
Russell Sage C	4.5	560
SUNY C Oneonta	4.4	1,157
SUNY A&T C Alfred	4.4	1,430
Helen Fuld Sch of Nursing	4.3	69
Syracuse U	4.3	3,546
Wells C	4.1	123
Beth Israel Med Ctr Sch of Nursing	4.0	50
Cazenovia C	4.0	278
Eisenhower C Inst of Tech	3.8	52
Maria Regina C	3.8	53
Pace U C of White Plains	3.8	531
Paul Smith's C of Arts and Sciences	3.7	322
SUNY C Plattsburgh	3.7	1,429
Bank Street C of Ed	3.7	81
SUNY Binghamton	3.7	1,954
Union Theol Sem	3.6	55
Columbia U Teachers C	3.6	689
Yeshiva U Midtown Ctr	3.6	56
Hartwick C	3.6	253
Iona C	3.5	823
Jewish Theol Sem of America	3.5	57
SUNY C Cortland	3.5	1,602
SUNY A&T C Cobleskill	3.5	889
SUNY Albany	3.4	2,290
Manhattan Sch of Music	3.4	145
Nazareth C of Rochester	3.4%	585
Manhattan C	3.4	652
Columbia U Grad Sch of Arts and Sciences	3.4	328
Hofstra U	3.2	2,128
Arnot Ogden Memorial Hosp Sch of Nursing	3.2	31
Sarah Lawrence C	3.2	186
Skidmore C	3.2	311
Word of Life Bible Inst	3.2	125
Saint Joseph's Hosp Sch of Nursing	3.1	32
Chautauqua Co Adult Ed	3.1	32
Columbia U Sch of Architecture	3.1	162
Roberts Wesleyan C	3.1	196
General Theol Sem	3.0	33
Columbia C	3.0	572
Columbia U Sch of Public Health	3.0	101
Yeshiva U Bronx	2.9	69
Marist C	2.9	729
Millard Fillmore Hosp Sch of Nursing	2.9%	35
Rochester Inst of Tech	2.8	2,368
U S Merchant Marine Acad	2.8	71
Columbia U Sch of Nursing	2.8	108
Pace U Westchester	2.8	757
Ithaca C	2.5	943
Houghton C	2.5	315
Saint Thomas Aquinas C	2.5	240
Vassar C	2.5	364
Saint Lawrence U	2.4	377
SUNY C of Ceramics Alfred U	2.4	127
Cornell U Endowed C's	2.3	3,045
SUNY C Potsdam	2.3	951
Practical Bible Training Sch	2.3	44
Columbia U main division	2.2	45
Columbia U Sch of Library Services	2.2	45
Long Island C Hosp Sch of Nursing	2.2	45
Culinary Inst of America	2.2%	777
Rensselaer Polytechnic Inst main campus	2.2	1,144
SUNY C Geneseo	2.1	1,078
Barnard C	2.1	383
Clark Sch of Nursing	2.0	50
C of Mount Saint Vincent	2.0	152
NY C of Podiatric Med	2.0	256
Columbia U Sch of Journalism	1.9	157
Brooklyn Law Sch	1.9	377
U of Rochester	1.8	1,249
Siena C	1.8	658
Le Moyne C	1.8	439
Colgate U	1.8	339
SUNY C of Environmental Science & Forestry	1.8	284
Union C	1.7	410
Columbia U Sch of Arts	1.7	120
Alfred U main campus	1.7	420
SUNY Downstate Med Ctr	1.6	432
Sisters of Charity Hosp Sch of Nursing	1.6	62

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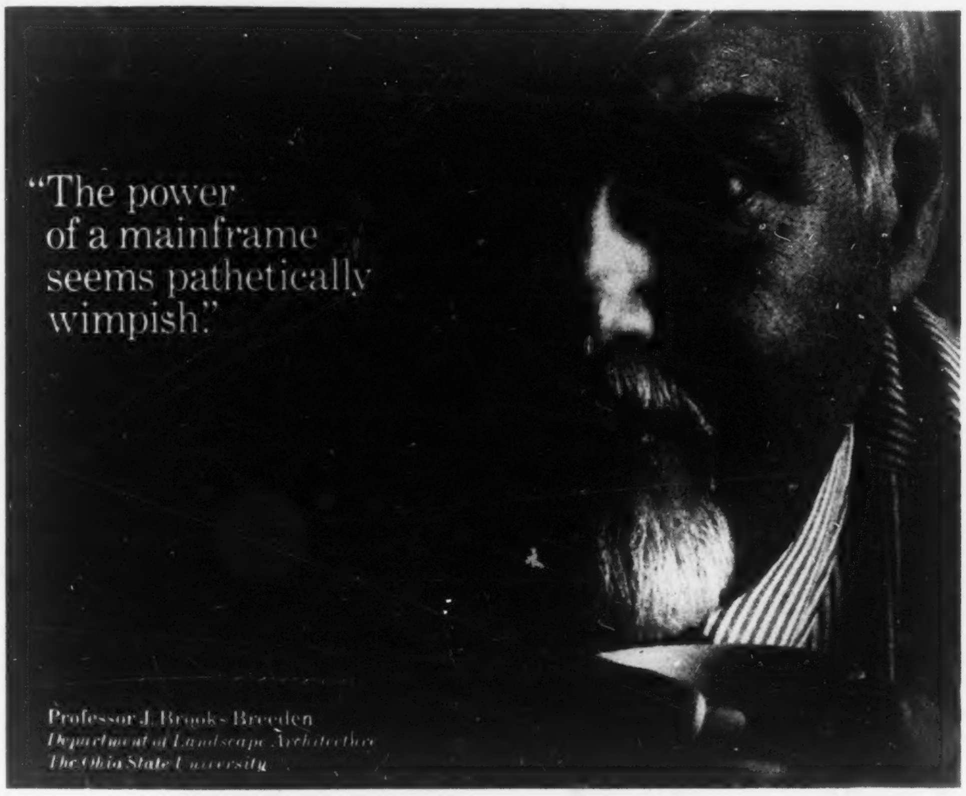
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AUTHORWARE

FACT FILE: Student-Loan Default Rates at More Than 3,200 Institutions—Continued

NEW YORK—Continued

New York Medical C	1.6%	437
SUNY Maritime C	1.6	188
SUNY Health Science Ctr Stony Brook	1.5	399
Cornell U Med Ctr	1.5	135
Hobart and William Smith C's	1.4	280
SUNY St C of Optometry	1.4	73
New York U Law Sch	1.4	441
CUNY Mount Sinai Sch of Med	1.3	229
New York Chiropractic C	1.2	340
Yeshiva U	1.2	256
U of Rochester Eastman Sch of Music	1.2	172
Saint Bonaventure U	1.2	516
Ayson Rabbinical Sem	1.0	99
Columbia U Sch of Int'l and Public Affairs	1.0	204
Clarkson U	0.9	957
Columbia U Sch of Engr & Applied Sciences	0.9	350
Albany C of Pharmacy	0.8	129
Hamilton C	0.7	268
Yeshiva U Brookdale	0.7	402
Albany Law Sch	0.7	295
Albert Einstein C of Med	0.7	298
Columbia U Sch of Law	0.5	415
Columbia U Sch of Business	0.4	566
SUNY Upstate Med Ctr	0.3	343
Saint Vincent's Med Ctr Sch of Nursing	0.0	32
Saint Elizabeth Hosp Sch of Nursing	0.0	33
Rabbinical Sem of Munkacs	0.0	34
Columbia U Sch of Physical Therapy	0.0	34
Saint Vincent's Hosp Sch of Nursing	0.0	48
New York St Veterinary C	0.0	76
Columbia U Sch of Dental and Oral Surgery	0.0	101
U of Rochester Sch of Med	0.0	126
New York U Sch of Med	0.0	154
Columbia U C of Physicians & Surgeons	0.0	169
New York Inst Tech C of Osteopathic Med	0.0	207
Albany Med C	0.0	221

NORTH CAROLINA

Wilson Co Tech Inst	48.4%	62
Barber-Scotia C	40.2	179
Saint Augustine's C	36.4	437
Johnson C Smith U	34.9	384
Vance-Granville CC	33.3	57
Livingstone C	33.1	130
Rutledge C	32.1	137
Shaw U	27.9	104
Elizabeth City St C	27.8	176
Halifax CC	27.8	54
Sampson CC	26.7	45
Chowan C	25.4	252
Winston-Salem St U	23.7	215
Bennett C	23.7	156
Lenoir Co CC main campus	22.9	48
Roanoke-Chowan CC	22.7	66
Pitt CC	21.9	73
Durham Tech Inst	21.9	64
Craven CC	21.6	51
Southwestern CC	20.4	49
Sandhills CC	19.4	67
Central Piedmont CC	19.3	135
North Carolina Central U	18.7	654
North Carolina A&T St U	18.5	669
Fayetteville St U	18.2	181
Wayne CC	18.2	55
Cape Fear CC	16.7	66
Fayetteville Tech CC	16.4	61
East Coast Bible C	16.1	62
Alamance CC	15.4	78
Forsyth Tech CC	14.5	55
Pembroke St C	12.5	160
Surry CC	11.1	36
Lees-McRae C	10.8	83
Asheville-Buncombe CC	10.4	48
NC Wesleyan C	10.1	158
Montreat-Anderson C	10.0	60
Atlantic Christian C	9.8	153
Guilford Tech CC	9.2	65
Catawba C	9.2	141
Wake Tech CC	8.7	104
Haywood Tech C	8.6	35
Mount Olive C	8.5	59
Guilford C	8.4	167
Greensboro C	8.3	96
Methodist C	8.3	240
Warren Wilson C	8.1	74
Louisburg C	7.8	115
Central Carolina CC	7.7	39
Piedmont Bible C	7.5	53
NC Sch of the Arts	7.1	70
Caldwell CC and Tech Inst	6.4	47
Western Piedmont CC	6.2	65
U of NC Charlotte	6.1	830
Elon C	6.0	217
Randolph CC	6.0	67
Pfeiffer C	5.8	137
Queens C	5.5	110
Wingate C	5.4	203
Brevard C	5.1	78

NORTH CAROLINA—Continued

Mars Hill C	5.1%	176
East Carolina U main campus	4.6	1,011
U of NC Wilmington	4.6	518
U of NC Greensboro	4.6	803
U of NC Asheville	4.5	133
Campbell U	4.5	492
Western Carolina U	4.4	527
NC St U Raleigh	4.2	1,649
High Point C	4.1	170
Salem C	4.1	73
Appalachian St U	3.5	893
Saint Andrew's Presbyterian C	3.4	146
Belmont Abbey C	3.3	151
U of NC Chapel Hill	2.9	1,814
Gardner-Webb C	2.3	262
Wake Forest U Bowman Gray Med C	2.0	49
Lenoir-Rhyne C	2.0	199
Peace C of Raleigh	1.9	52
Carolina Coastal CC	1.8	55
U of NC Sch of Dentistry	1.3	77
Duke U	1.3	1,478
Wake Forest U	1.2	483
Babcock Graduate Sch of Management	1.1	88
Meredith C	0.6	155
U of NC Sch of Pharmaceutical Sci	0.0	33
Duke U Sch of Med	0.0	70
East Carolina U Sch of Med	0.0	71
Davidson C	0.0	95
U of NC Sch of Med	0.0	153
Bowman Gray Sch of Med	0.0	179

NORTH DAKOTA

Standing Rock C	57.7%	130
Northwest Bible C	25.9	58
U of ND Williston	17.3	156
U of ND Lake Region	14.2	134
Dickinson St U	12.8	375
Trinity Bible C	11.5	192
Bismarck JC	11.0	694
Valley City St C	10.4	268
Mayville St C	9.8	184
Minot St U	8.8	681
U of Mary	8.8	377
Jamestown C	8.5	176
ND St C of Science	6.9	1,160
U of ND main campus	6.6	2,304
ND St U Bottineau	5.1	117
ND St U central office	4.6	2,135
Saint Luke's Hosp Sch of Nursing	3.8	52
Trinity Sch of Nursing	2.9	34
U of ND Sch of Med	0.0	55

OHIO

Garfield Skills Ctr	67.1%	70
Penn-Ohio C	44.6	83
Wilberforce U	37.4	401
Tri-County Joint Voc Sch	31.9	72
Lawrence Co Joint Voc Sch	29.7	91
Central St U	29.5	584
Cuyahoga CC central office	26.9	789
Dyke C	25.9	220
Lorain Co CC	21.3	333
Ashtabula Co Joint Voc Sch Adult Ed	20.7	111
Clark St CC	18.3	230
Washington Tech C	16.1	112
ATES Tech Sch	15.7	178
Jefferson Tech C	14.8	81
Southern St CC	11.5	157
Antioch U main campus	10.5	1,294
Belmont Tech C	10.2	147
Lakeland CC	9.2	141
Muskingum Area Tech C	9.0	189
Findlay C	8.7	253
Franklin U	8.3	432
Union for Experimenting C's and U's	8.2	244
Columbus St CC	7.9	642
Wilmington C	7.6	157
Urbana C	7.5	53
Edison St CC	7.5	93
Circleville Bible C	7.1	70
Notre Dame C	6.8	74
Sinclair CC	6.7	523
Lima Tech C	6.5	214
C of Mount Saint Joseph	5.9	185
Michael J Owens Tech C	5.9	355
Art Acad of Cincinnati	5.9	51
Cincinnati Tech Inst	5.7	264
Defiance C	5.7	229
Shawnee St U	5.5	256
Northwest Tech C	5.3	95
Central Ohio Tech C	5.1	137
Marion Tech C	5.1	118
Hocking Tech C	5.0	538
Aultman Hosp Sch of Nursing	5.0	40
Great Oaks Sch of Practical Nursing	4.7	43
Rio Grande C	4.5	268
Terra Tech C	4.4	135
Lake Erie C	4.3	138
Mount Union C	4.3	253
Columbus C of Art and Design	4.3	231

OHIO—Continued

Cincinnati C of Mortuary Science	4.3%	47
Heidelberg C	4.1	241
Oberlin C	4.1	557
North Central Tech C	4.0	200
Tiffin U	3.9	102
Ohio U main campus	3.7	2,887
Stark Tech C	3.6	251
Walsh C	3.5	141
Kenyon C	3.4	146
Xavier U	3.4	678
C of Wooster	3.4	268
Canton City Sch of Practical Nursing	3.3	30
Ashland C	3.3	451
Trinity Lutheran Sem	3.2	31
Ohio Dominican C	3.2	188
Kent St U main campus	3.2	3,085
Cincinnati Bible Sem	3.0	167
Cleveland St U	3.0	1,115
U of Cincinnati main campus	2.9	2,294
U of Akron	2.9	2,222
Youngstown St U	2.8	1,205
Wright St U central office	2.8	1,326
Kettering C of Medical Arts	2.6	117
Ohio St U	2.6	6,681
Malone C	2.5	163
U of Toledo	2.4	1,715
Methodist Theol Sch	2.4	42
Ohio Northern U	2.4	676
Denison U	2.3	303
Wittenberg U	2.3	262
Cedarville C	2.3	400
Bluffton C	2.2	134
Miami U central office	2.2	2,165
Franciscan U Steubenville	2.2	227
U of Cincinnati C of Med	2.1	190
Hiram C	2.1	192
Bowling Green St U main campus	2.0	2,626
U of Dayton	2.0	1,795
Cleveland Inst of Music	2.0	50
Marietta C	1.9	321
Saint Vincent Med Ctr Sch of Nursing	1.8	57
Cleveland Inst of Art	1.7	115
Muskingum C	1.7	240
Otterbein C	1.6	247
Capital U	1.6	631
Mount Vernon Nazarene C	1.5	266
John Carroll U	1.5	471
Medical C of Ohio	1.5	205
Case Western Reserve U	1.5	1,305
Baldwin-Wallace C	1.3	475
Ohio Wesleyan U	1.1	270
Ohio C of Podiatric Med	1.0	287
Ursuline C	1.0	97
Northeastern Ohio U's C of Med	0.7	144
Miami Valley Hosp Sch of Nursing	0.0	32
Ohio Valley Hosp Sch of Nursing	0.0	35
Deaconess Hosp Sch of Nursing	0.0	39
Clark Co Sch of Nursing	0.0	39
Lourdes C	0.0	43
Bethesda Hosp Sch of Nursing	0.0	46
Ohio St U C of Optometry	0.0	49
United Theol Sem	0.0	50
Toledo Hosp Sch of Nursing	0.0	50
Mount Carmel Med Ctr Sch of Nursing	0.0	59
Good Samaritan Hosp Sch of Nursing	0.0	60
Christ Hosp Sch of Nursing	0.0	62
Case Western Reserve U Sch of Dentistry	0.0	85
Ohio St U C of Vet Med	0.0	95
Case Western Reserve U Sch of Med	0.0	163
Wright St U Sch of Med	0.0	165
Ohio St U C of Dentistry	0.0	176
Ohio St U C of Med	0.0	290

OKLAHOMA

Moore-Norman Area Voc-Tech Sch	43.4%	53
Central Oklahoma Area Voc-Tech Sch	40.6	69
Francis Tuttle Area Voc-Tech Ctr	39.0	59
Red River Area Voc-Tech Sch	20.0	30
Mid-America Bible C	17.9	84
Tulsa JC	17.2	221
Oklahoma Panhandle St U	15.9	176
Murray St C	15.7	159
Langston U	10.1	109
Bartlesville Wesleyan C	7.8	115
Southern Nazarene U	7.1	407
Bacone C	5.8	69
Rogers St C	5.6	215
U of Science & Arts of Okla	5.1	156
Oral Roberts U	5.1	1,134
Northwestern Okla St U	5.0	119
Oklahoma Christian C	4.6	368
El Reno JC	3.8	52
Connors St C	3.4	117
Willis Skills Ctr	3.3	30

OKLAHOMA—Continued

Western Oklahoma Area Voc-Tech Sch	3.2%	31
Northeastern Okla A&M C	3.1	194
Oscar Rose JC	2.8	249
Tri-County Area Voc-Tech Sch	2.8	36
U of Oklahoma Norman	2.4	2,064
Oklahoma St U Okmulgee	2.4	296
Southeastern Okla St U	2.3	348
Oklahoma City CC	2.2	274
Northern Oklahoma C	2.1	146
Southwestern Okla St U	2.0	546
Central St U	1.9	772
Phillips U	1.9	108
U of Tulsa	1.8	919
C of Osteopathic Med of Oklahoma St U	1.8	168
Northeastern Okla St U	1.7	917
Cameron U	1.6	185
Oklahoma Baptist U	1.6	187
Okla St U main campus	1.3	2,228
East Central Okla St U	1.2	260
U of Oklahoma Health Sciences Ctr	0.8	621
Seminole JC	0.7	146
Canadian Valley Area Voc-Tech Sch	0.0	33
Gordon Cooper Area Voc-Tech Sch	0.0	39
Autrey Area Voc-Tech Ctr	0.0	43
Tulsa Co Area Voc-Tech Sch	0.0	48
Oklahoma St U Oklahoma City	0.0	56
Indian Meridian Area Voc-Tech Sch	0.0	56
Eastern Oklahoma St C	0.0	61
Western Oklahoma St C	0.0	80
Kiamichi Area Voc-Tech Sch	0.0	84
Carl Albert JC	0.0	105

OREGON

Rogue CC	32.8%	186
Linn-Benton CC	31.9	586
Clackamas CC	30.9	207
Blue Mountain CC	30.9	204
Lane CC	30.3	689
Eastern Oregon C	29.6	463
Chemeketa CC	29.4	449
Portland CC	28.1	620
Clatsop CC	28.0	82
Umpqua CC	26.7	176
Oregon Polytechnic Inst	25.7	451
Treasure Valley CC	24.5	98
Southwestern Oregon CC	22.4	49
Mount Hood CC	21.2	316
Northwest Christian C	21.1	38
Columbia Christian C	19.3	83
Concordia C	17.5	97
Central Oregon CC	16.8	149
Southern Oregon St C	15.5	951
Pacific Northwest C of Art	14.3	56
Marylhurst Ed Ctr	14.0	229
Warner Pacific C	12.9	101
Oregon Inst of Tech	12.4	704
Western Baptist Bible C	10.8	65
Western Oregon St C	10.4	588
Portland St U	10.3	1,775
U of Oregon main campus	10.3	2,635
Linfield C	8.7	334
Eugene Bible C	8.1	37
U of Portland	7.6	461
Oregon St U	7.4	2,501
George Fox C	6.7	194
Reed C	4.8	166
Lewis and Clark C	4.6	303
Western Sts Chiropractic C	4.1	195
Pacific U	3.6	253
Multnomah Sch of the Bible	3.5	86
Willamette U	3.3	514
Western Conservative Baptist Theol Sem	2.7	75
Lewis and Clark C C of Law	2.5	325
Ore Health Sci U Med Sch 2-yr pgm	2.2	178
Ore Health Sci U Med Sch 4-yr pgm	1.4	143
Ore Health Sciences U Dental Sch 4-yr pgm	1.1	92
Ore Health Sciences U Dental Sch	0.0	31
Pacific U C of Optometry	0.0	109

PENNSYLVANIA

Berean Inst	44.0%	50
Connelley Skill Learning Ctr	37.1	62
CC of Philadelphia	31.5	1,109
Cheyney U of Pa	30.4	566
Pennsylvania Inst of Tech	23.1	160
Peirce JC	19.9	483
Orleans Tech Inst	19.2	240
Northeast Inst of Ed	18.5	130
James Martin Sch Adult Voc-Tech Ctr	18.0	111
CC of Allegheny Co	18.0	1,545
Lincoln U	17.5	423
Northeastern Christian JC	17.2	87
Reading Area CC	16.4	171

PENNSYLVANIA—Continued

Pa Acad of the Fine Arts	16.0%	50
CC of Beaver Co	14.1	341
CC of Delaware Co	14.0	420
Greater Johnstown Area Voc-Tech Sch	13.6	154
Lackawanna JC	12.9	232
Eastern Baptist Theol Sem	12.5	32
U of the Arts	11.6	336
Harrisburg Area CC	11.3	389
Pinebrook JC	11.0	73
Chatham C	10.8	139
Westmoreland Co CC	10.6	464
Temple U	10.3	4,133
Harcum JC	9.9	303
Valley Forge Military JC	9.8	41
Lackawanna Co Voc-Tech Sch of Nursing	9.8	41
Valley Forge Christian C	9.7	134
Wilson C	9.6	73
Luzerne Co CC	9.4	362
York Co Area Voc-Tech Sch	8.7	46
Einstein Med Ctr Sch of Nursing	8.7	46
Point Park C	8.6	418
Episcopal Hosp Sch of Nursing	8.6	35
Keystone JC	8.5	398
Bucks Co CC	8.5	375
Mercyhurst C	8.2	367
Butler Co CC	8.1	236
California U of Pa	7.9	969
Moore C of Art	7.9	140
Alliance C	7.7	65
Philadelphia C of Textiles and Sciences	7.6	393
La Salle U	7.6	953
Northampton Co Area CC	7.4	258
Pittsburgh Inst of Aeronautics	7.2	250
Edinboro U of Pa	7.1	1,198
United Wesleyan C	7.0	57
Philadelphia C of the Performing Arts	7.0	43
Pa C of Podiatric Med	6.8	44
Allentown Hosp Sch of Nursing	6.8	44
Saint Francis Med Ctr Sch of Nursing	6.8	59
Waynesburg C	6.7	179
Juniata-Mifflin Co Area Voc-Tech Sch	6.7	30
La Roche C	6.6	228
Spring Garden C	6.6	213
Seton Hill C	6.4	187
Pa Sch of the Arts	6.3	32
Thaddeus Stevens St Sch of Tech	6.3	80
Montgomery Co CC	6.2	325
Delaware Valley C of Science and Ag	5.8	274
Electronic Insts	5.7	105
Manor JC	5.6	107
Kings C	5.6	428
Harmarville Training Inst	5.6	36
West Chester U of Pa	5.4	1,546
U of Pittsburgh Titusville	5.4	111
Immaculata C	5.4	130
Wilkes C	5.4	504
Allegheny C	5.3	412
Jefferson U Sch of Nursing	5.3	95
Temple U Sch of Art	5.3	114
Lehigh Co CC	5.3	247
Mount Aloysius JC	5.1	273
York C	5.1	625
U of Pittsburgh main campus	5.1	4,254
East Stroudsburg U of Pa	5.1	869
Carlow C	5.0	239
Williamsport Area CC	5.0	1,057
Saint Joseph's C	4.9	676
Saint Luke's Hosp Sch of Nursing	4.9	41
Robert Morris C	4.8	909
Automotive Training Ctr	4.8	62
Chestnut Hill C	4.8	146
Alvernia C	4.6	130
C Misericordia	4.6	262
Mansfield U	4.6	678
Duquesne U	4.6	1,203
Saint Francis C	4.5	242
Widener U	4.5	905
Cabrini C	4.5	177
Holy Family C	4.5	202
Conemaugh Valley Memorial Hosp Sch of Nursing	4.4	45
Saint Vincent Hosp Sch of Nursing	4.4	45
Lock Haven U of Pa	4.4	630
Thiel C	4.4	252
Geneva C	4.3	278
Hahnemann U	4.3	696
Baptist Bible C	4.3	186
Slippery Rock U of Pa	4.1	1,382
Kutztown U of Pa	4.1	1,123
Sharon General Hosp Sch of Nursing	4.1	49
Marywood C	4.0	525
Johnson Tech Inst	3.9	127
Indiana U of Pa main campus	3.9	2,593
Gannon C	3.9	790
U of Pittsburgh Sch of Med	3.9	102

PENNSYLVANIA—Continued

Temple U Ambler	3.9%	564
Eastern C	3.8	182
Philadelphia C of the Bible	3.8	131
Beaver C	3.7	351
Moravian C main campus	3.6	333
U of Pittsburgh Bradford	3.5	256
Mercy Hosp Sch of Nursing	3.4	58
Lycoming C	3.4	294
Allentown C of Saint Francis De Sales	3.3	269
Juniata C	3.3	301
Elizabethtown C	3.3	367
Millersville U	3.3	1,168
Temple U Sch of Pharmacy	3.2	95
Villanova U	3.1	1,557
Washington Hosp Sch of Nursing	3.1	32
Cedar Crest C	3.1	192
Pa St U main campus	3.1	11,259
Philadelphia C of Pharmacy and Science	3.1	225
Clarion U of Pa	2.9	1,191
U of Pittsburgh Greensburg	2.9	244
U of Scranton	2.8	844
Shippensburg U of Pa	2.8	916
Mercer Co Area Voc-Tech Sch	2.8	36
Drexel U	2.7	2,057
Jameson Memorial Hosp Sch of Nursing	2.6	38
Washington Jefferson C	2.6	193
Community Med Ctr Sch of Nursing	2.6	39
Bryn Mawr C	2.5	355
Carnegie Mellon U	2.5	1,316
Gwynedd-Mercy C	2.5	244
Westminster C	2.4	209
Swarthmore C	2.4	212
Bloomsburg U of Pa	2.4	1,148
Altoona Hosp Sch of Nursing	2.3	43
Jefferson U Med C	2.3	216
Pittsburgh Inst of Mortuary Science	2.2	45
Neumann C	2.2	137
Lehigh U	2.2	741
U of Pittsburgh Johnstown	2.1	699
Pennsylvania C of Straight Chiropractic	2.1	47
Pennsylvania C of Podiatric Med	2.1	95
Saint Vincent C	2.1	193
U of Pennsylvania	1.9	3,557
Danville Area Sch Dist Practical Nursing Pgm	1.9	53
Lebanon Valley C	1.8	228
Pittsburgh Theol Sem	1.7	58
Villa Maria C	1.6	122
Lancaster Bible C	1.6	62
Rosemont C	1.6	62
Albright C	1.6	314
W Pa Hosp Sch of Nursing	1.6	63
Shadyside Hosp Sch of Nursing	1.5	67
Bucknell U	1.5	479
Lancaster General Hosp Sch of Nursing	1.4	69
Ursinus C	1.3	229
Lafayette C	1.3	314
Philadelphia C of Osteopathic Med	1.2	241
Franklin and Marshall C	1.2	323
Grove City C	1.2	330
Temple U Sch of Med	1.2	169
Messiah C	1.1	361
Dickinson Sch of Law	1.1	189
Dickinson C	1.0	381
Susquehanna U	1.0	299
Muhlenberg C	0.9	341
Medical C of Pennsylvania	0.8	128
Temple U Pharmacy Sch	0.8	128
Thomas Jefferson U Dept of Med	0.7	145
Penn C of Optometry	0.7	147
Haverford C	0.6	175
Gettysburg C	0.3	293
Bryn Mawr Hosp Sch of Nursing	0.0	32
Lankenau Hosp Sch of Nursing	0.0	35
Robert Packer Hosp Sch of Nursing	0.0	38
Westminster Theol Sem	0.0	39
Sewickley Valley Hosp Sch of Nursing	0.0	39
Reading Hosp Sch of Nursing	0.0	46
Geisinger Med Ctr Sch of Nursing	0.0	71
Frankford Hosp Sch of Nursing	0.0	72
Penn St U Med Ctr	0.0	109
Temple U Sch of Dentistry	0.0	136

RHODE ISLAND

National Ed Ctr RI Trade Shop	19.6%	475
Rhode Island JC	15.2	833
New England Inst of Tech	9.9	923
Barrington C	9.8	61
Rhode Island C	7.9	938

RHODE ISLAND—Continued

Johnson & Wales U	7.1%	1,705
Roger Williams C main campus	5.3	505
Newport Hosp Sch of Nursing	5.1	39
U of RI main campus	4.5	2,216
Salve Regina C	4.2	313
RI Sch of Design	3.9	407
Saint Joseph's Hosp Sch of Nursing	3.3	30
Brown U	2.5	1,075
Providence C	2.0	659
Bryant C	1.2	766

SOUTH CAROLINA

Rutledge C	62.6%	99
Allen U	50.0	56
Voorhees C	49.7	199
Claflin C	49.3	211
Morris C	42.6	282
Denmark Tech Ed Ctr	41.2	194
Benedict C	36.5	554
Sumter Area Tech Ed Ctr	32.2	149
Greenville Tech C	27.8	158
Baptist C Charleston	22.4	371
Piedmont Tech Ed Ctr	22.2	81
Spartanburg Tech C	21.0	62
U of SC Coastal Carolina	20.0	424
Midlands Tech C	19.0	263
Florence-Darlington Tech C	18.8	69
U of SC Sumter	18.2	110
South Carolina St C	17.6	478
Tech C of the Lowcountry	16.4	73
Horry-Georgetown Tech Education Ctr	16.1	93
Spartanburg Methodist C	16.0	94
U of SC Spartanburg	15.0	266
Trident C north	15.0	167
North Greenville JC	14.7	129
Francis Marion C	13.2	296
Limestone C	12.4	169
Columbia C	12.2	189
Coker C	11.5	104
U of SC Aiken Co	11.0	154
Anderson C	8.7	230
Wofford C	8.1	124
C of Charleston	7.8	513
U of SC main campus	7.4	2,852
Central Wesleyan C	6.9	116
Lander C	6.9	335
Newberry C	6.5	93
Erskine C	6.3	64
Tri-County Tech Ed Ctr	5.6	54
Winthrop C	4.3	397
Citadel	4.0	322
Columbia Bible C	4.0	126
Presbyterian C	3.5	114
Sherman C of Straight Chiropractic	3.4	148
Clemson U main campus	3.4	1,220
Medical U of SC	3.0	331
Converse C	2.1	94
Furman U	2.0	252
Medical U of SC C of Dental Med	0.0	35
Medical U of SC C of Med	0.0	102

SOUTH DAKOTA

Sisseton-Wahpeton CC	48.4%	64
Sinte Gleska C	47.4	38
Killian CC	17.4	86
Mitchell Area Voc-Tech Sch	15.9	397
Yankton C	14.3	35
Dakota Wesleyan U	12.8	321
W Dakota Voc-Tech Inst	11.7	265
Southeast Area Sch of Practical Nursing	9.4	255
Mount Marty C	6.3	175
Presentation C	6.2	210
Black Hills St C	6.1	733
Dakota St C	6.1	313
Lake Area Voc-Tech Inst	6.0	448
U of SD Springfield	5.9	51
Sioux Falls C	5.2	249
Rapid City Region Hosp Sch of Nursing	4.9	61
Northern St C	3.8	797
Augustana C	3.4	468
U of South Dakota	2.8	1,514
SD Sch of Mines & Tech	2.5	515
South Dakota St U	2.5	1,563
U of SD Sch of Med	1.2	84
Sioux Valley Hosp Sch of Nursing	0.0	44

TENNESSEE

Rutledge C	72.1%	269
Memphis Area Voc-Tech Sch	55.3	311
Lane C	46.8	284
Shelby St CC	44.3	682
Le Moyne-Owen C	38.8	312
St Area Voc-Tech Sch Knoxville	38.5	143
St Area Voc-Tech Sch Jackson	38.0	79
St Area Voc-Tech Sch Whiteville	36.0	50
McKenzie C	35.6	261
American Baptist Theol Sem C of Bible	34.1	41
St Area Voc-Tech Sch Hartsville	33.3	30
St Tech Inst Memphis	28.8	379
Tennessee St U	28.0	1,731
St Area Voc-Tech Sch Covington	26.5	34
Fisk U	25.3	225
St Area Voc-Tech Sch Morristown	23.6	55
Pellissippi St Tech CC	21.9	242
St Area Voc-Tech Sch Paris	21.2	52
Crichton C	20.5	73
Dyersburg St CC	20.5	88
Morristown C	19.8	101
St Area Voc-Tech Sch Newbern	19.0	42
Knoxville C	18.8	255
St Area Voc-Tech Sch Jacksboro	17.3	52
St Area Voc-Tech Sch Crossville	16.9	65

TENNESSEE—Continued

Memphis C of Art	16.8%	101
Chattanooga St Tech CC	16.7	269
Jackson St CC	14.2	148
St Area Voc-Tech Sch Harriman	13.9	36
Lincoln Memorial U	13.4	291
Memphis St U	12.6	2,180
Martin C	12.3	73
Tri-Cities St Tech Inst	12.2	115
Bethel C	12.1	132
Nashville St Tech Inst	12.0	309
U of Tennessee Chattanooga	11.7	772
Roane St	11.6	249
Saint Joseph Hospital Sch of Nursing	10.9	64
Hiwassee C	10.3	136
King C	10.0	50
Maryville C	10.0	140
Motlow St CC	9.9	161
Tennessee Wesleyan C	9.5	105
Cleveland St CC	9.4	192
Christian Brothers C	9.2	315
Tomlinson C	8.8	114
Nashville Area Voc-Tech Sch	8.7	46
Walters St CC	8.7	161
Tusculum C	7.9	381
Cumberland C of Tenn	7.5	107
Carson-Newman C	7.3	327
Tennessee Temple C	7.0	383
Union U	6.8	293
St Area Voc-Tech Sch McMinnville	6.7	30
Austin Peay St U	6.5	604
Columbia St CC	6.3	158
East Tennessee St U main campus	6.3	1,260
Volunteer St CC	6.1	148
Lee C	6.0	352
Southern C of Seventh-Day Adventists	5.7	422
St Area Voc-Tech Sch Livingstone	5.3	38
Aquinas JC	5.3	57
Johnson Bible C	5.2	77
Meharry Medical C	4.8	311
Lambuth C	4.8	125
U of the South	4.5	155
U of Tennessee Martin	4.5	781
William Jennings Bryan C	4.3	93
Trevecca Nazarene C	4.3	791
Middle Tennessee St U	4.3	1,879
Freed-Hardeman C	4.2	309
U of Tennessee Knoxville	3.5	3,105
O'More Sch of Interior Design	3.3	30
Church of God Sch of Theol	3.3	30
Rhodes C	3.2	155
Belmont C	3.2	347
Milligan C	3.1	196
U of Tennessee Ctr for Health Sciences	3.0	135
Emmanuel Sch of Religion	2.9	34
Baroness Erlanger Hosp Sch of Nursing	2.6	38
Methodist Hosp Sch of Nursing	2.6	39

TENNESSEE—Continued

Tennessee Tech U	2.4%	1,056
David Lipscomb U	1.4	347
Vanderbilt U	1.4	1,266
East Tennessee St U Sch of Med	1.1	90
Southern C of Optometry	1.1	181
U of Tennessee C of Pharmacy	0.0	48
Vanderbilt U Sch of Med	0.0	95
U of Tennessee Health Sci Ctr	0.0	164
U of Tennessee C of Med	0.0	215

TEXAS

Paul Quinn C	46.9%	113
Cedar Valley C	44.2	52
Bishop C	42.8	383
El Centro C	40.6	281
San Antonio Training Div Texas English Ext Sch	39.8	166
Texas St Tech Inst Mid-Continent	39.0	405
Texas C	37.0	230
Houston CC	35.7	690
Hill JC	35.5	166
Weatherford C	34.6	52
Brazosport C	34.5	110
Odessa C	34.1	126
Wiley C	33.5	164
Paris JC	33.5	197
Central Texas C	33.2	894
Temple JC	32.9	155
Lon Morris C	32.7	55
Cisco JC	32.5	191
C of the Mainland	31.7	60
Jarvis Christian C	31.0	226
Navarro JC	30.3	198
Amarillo C	30.3	400
Bee County C	29.8	369
Eastfield C	29.7	111
North Harris Co C	29.7	300
Angelina C	28.6	154
Southwestern Christian C	28.3	60
Trinity Valley CC	28.0	189
U of Houston Downtown	27.5	484
Ranger C	27.0	185
McLennan CC	27.0	356
Galveston C	26.6	94
Alvin CC	26.1	134
Commonwealth C of Funeral Service	25.8	89
Prairie View A&M U	25.1	557
Grayson Co JC	25.0	108
Kilgore C	24.6	114
Laredo JC	24.5	159
Wharton Co JC	24.1	320
Texas Southmost C	23.4	299
Tyler JC	23.4	359
Frank Phillips C	22.5	71
Southwest Texas JC	22.4	143
Richland C	22.3	282
Texas St Tech Inst Connally	22.1	949
Texas Southern U	21.9	2,030
Vernon Regional JC	21.9	105
North Lake C	21.3	108

Continued on Following Page

Student self-responsibility:

A primary objective

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FACT FILE: Student-Loan Default Rates at More Than 3,200 Institutions—Continued

TEXAS—Continued

Texas St Tech Inst Rolling Plains	21.1%	209
Lamar U	20.8	826
Mountain View C	20.3	64
South Plains C	20.0	404
Clarendon C	20.0	80
Brookhaven C	20.0	145
San Jacinto C	19.7	304
Austin CC	19.3	1,182
Cooke Co JC	18.5	124
Lubbock Christian U	18.5	287
El Paso CC	18.4	320
Saint Philips C	18.4	310
Tarrant Co JC main campus	18.3	617
Amber U	17.9	39
Texas St Tech Inst Rio Grande	17.9	665
Northwood Inst of Texas	17.1	41
San Antonio C Dist central office	16.8	1,039
Texarkana C	16.7	102
Panola JC	16.1	31
Victoria C	16.0	94
McMurry C	15.9	358
Schreiner C	15.9	88
Howard County JC Dist	15.3	85
Southwestern Adventist C	15.0	246
Western Texas C	14.5	69
Blinn C	14.5	152
Huston-Tillotson C	14.3	217
Del Mar C	13.8	449
Texas Lutheran C main campus	12.8	250
U of Houston Victoria	12.8	47
Wayland Baptist U	12.5	312
Sam Houston St U	12.2	1,268
U of Texas Tyler	12.1	298
Concordia Lutheran C of Texas	11.9	101
Tarleton St U	11.7	566
U of Houston U Park	11.6	2,539
Midwestern St U	11.6	329
Pan American C	11.5	1,522
American Tech U	11.5	96
Sul Ross St U	11.4	422
Dallas Baptist U	11.2	267
Southwestern Assemblies of God C	10.7	242
U of Texas El Paso	10.3	853
East Texas St U	10.1	779
Methodist Hospital Sch of Nursing	10.0	60
U of Texas Arlington	9.7	2,125
Our Lady of the Lake U San Antonio	9.6	375
Texas A&M U Engineering Extension	9.6	73
Midland C	9.4	32
Arlington Baptist C	9.4	64
Stephen F Austin St U	9.3	953
West Texas St U	9.3	537
Texas Wesleyan U	9.2	238
Texas Tech U	9.2	2,813
Texas Woman's U	9.1	902
Texas A&I U	9.0	941
U of North Texas	8.9	1,865
Southwest Texas St U	8.7	2,281
Howard Payne C	8.2	85
Angelo St U	8.0	575
Saint Edward's U	7.9	516
Houston Baptist C	7.9	417
Incarnate Word C	7.8	306
U of Texas Dallas	7.8	396
U of Mary Hardin-Baylor	7.7	300
Corpus Christi St U	7.0	243
U of Texas San Antonio	7.0	1,201
U of Houston Clear Lake City	7.0	244
Hardin-Simmons U	7.0	431
Saint Mary's U of San Antonio	6.6	832
U of Saint Thomas	6.5	214
Abilene Christian U	6.3	827
Texas A&M U Galveston	5.9	85
Texas Christian U	5.9	801
Austin C	5.8	208
Texas Chiropractic C	5.8	243
Laredo St U	5.3	57
Rice U	5.0	424
Le Tourneau C	4.9	203
U of Texas Permian Basin	4.8	62
East Texas Baptist U	4.8	166
U of Texas Health Science Ctr Dallas	4.7	213
U of Texas Austin	4.7	4,917
Trinity U	4.6	302
South Texas C of Law	4.3	445
Parker C of Chiropractics	3.9	129
Southwestern U	3.7	188
U of Dallas main campus	3.6	302
Baylor U central office	3.6	1,283
Texas A&M U	3.4	4,160
Southern Methodist U	3.4	1,215
U of Texas Medical Branch Galveston	3.3	330
U of Texas Health Science Ctr Houston	2.6	545
Baylor C of Dentistry	1.9	155
Baylor C of Med	1.7	232
Texas C of Osteopathic Med	1.4	146
Texas Tech U Health Sciences C	1.1%	276
U of Texas Health Science Ctr San Antonio	1.0	592
Southwestern Baptist Theol Sem	0.9	106

UTAH

Davis Area Voc Ctr	36.7%	49
C of Eastern Utah	26.7	116
Utah Tech C Salt Lake City	22.3	431
Sevier Valley Area Voc Ctr	21.4	42
Southern Utah St C	19.8	388
Dixie C	14.8	142
Weber St C	14.6	876
Snow C	14.3	112
Utah Valley CC	13.4	486
Latter Day Saints Business C	11.5	87
Westminster C Salt Lake City	8.7	275
Utah St U main campus	7.8	1,304
U of Utah	7.4	2,499
Brigham Young U	3.1	3,423

VERMONT

Burlington C	14.7%	75
Vermont C	12.7	118
Southern Vermont C	10.9	138
CC of Vermont	10.1	138
Marlboro C	8.5	47
Bennington C	8.1	135
C of Saint Joseph	7.5	80
Goddard C	7.4	122
Green Mountain C	7.0	86
Woodbury C	6.6	76
Sch for International Training	5.6	143
Johnson St C	4.6	303
Castleton St C	4.3	446
Saint Michael's C	4.0	327
Norwich U	3.8	661
Champlain C	3.6	718
Lyndon St C	3.0	304
Vermont Tech C	1.9	263
Middlebury C	1.4	433
U of Vermont	1.4	1,750
Trinity C	1.1	178
Vermont Law Sch	0.4	240

VIRGINIA

Thomas Nelson CC	33.3%	36
Richmond Public Sch of Practical Nursing	32.4	37
Saint Paul's C	30.2	86
Virginia Union U	27.0	293
Norfolk St U	23.0	352
Virginia St U	22.4	429
Hampton U	13.8	556
Northern Virginia CC	13.2	114
Virginia Western CC	12.5	40
J Sargeant Reynolds CC	12.5	64
Virginia Schs	10.7	169
Ferrum C	10.3	97
Virginia Intermont C	8.5	71
Tidewater CC	7.9	63
Shenandoah C and Conservatory of Music	7.4	135
Christopher Newport C	6.9	102
Hollins C	6.2	97
Marymount C of Virginia	5.3	188
Southern Seminary JC	4.9	41
Roanoke C	4.7	127
George Mason U	4.3	421
Averett C	4.2	72
Lynchburg C	3.9	205
Old Dominion U	3.4	914
Liberty U	3.0	1,034
Virginia Wesleyan C	2.6	77
Randolph-Macon C	2.5	80
Mary Baldwin C	2.4	82
Eastern Mennonite C	2.4	170
Washington and Lee U	2.3	256
Longwood C	2.3	87
Virginia Commonwealth U Sch of Med	2.0	49
Mary Washington C	2.0	151
Radford C	1.9	156
Hampden-Sydney C	1.9	54
Bridgewater C	1.8	57
Virginia Commonwealth U main campus	1.8	969
Virginia Polytechnic Inst and St U	1.4	1,042
Randolph-Macon Women's C	1.3	79
U of Virginia	1.2	1,489
James Madison U	1.2	421
C of William and Mary	1.2	508
Virginia Military Inst	1.1	94
U of Richmond	0.6	350
U of Va Clinch Valley C	0.0	32
Emory and Henry C	0.0	33
Virginia Commonwealth U Sch of Dentistry	0.0	34
Eastern Virginia Med Sch	0.0	83
Sweet Briar C	0.0	85
Virginia Commonwealth U Med C	0.0	292

WASHINGTON

Seattle Opportunities Industrial Ctr	37.8%	534
Whatcom CC	31.3	83
Grays Harbor C	30.1	83
Seattle CC central office	25.8	295
Seattle CC South	23.8	185
Peninsula C	23.6	69
Yakima Valley C	22.8	228
Bellingham Tech Sch	22.4	116
Clark C	22.0	322
Lower Columbia C	20.7	169
Wenatchee Valley C	19.5	195
South Puget Sound CC	18.6	140
Tacoma CC	18.4	206
Renton Voc-Tech Inst	18.1	166
Highline CC	17.9	263
Big Bend CC	16.3	147
Walla Walla CC	15.5	181
Centralia C	15.2	33
Spokane Falls CC	14.8	500
L H Bates Voc-Tech Inst	14.8	196
Cornish Sch of Allied Arts	14.5	145
Olympic C	14.3	70
Green River CC	13.8	123
Griffin C	13.4	494
Skagit Valley C	12.8	125
Columbia Basin CC	12.6	215
Heritage C	11.8	51
Seattle CC North	11.2	161
Clover Park Voc-Tech Inst	11.1	350
Spokane CC	10.7	674
Art Inst of Seattle	10.7	619
Evergreen St C	10.3	456
Bellevue CC	9.5	179
Pierce C	9.5	95
Everett CC	8.8	114
Shoreline CC	8.6	220
Perry Tech Inst	7.6	172
Edmonds CC	7.1	98
City U	7.1	253
Eastern Washington U	6.9	1,207
Northwest C	6.1	165
Lake Washington Voc-Tech Inst	5.8	121
Gonzaga U	5.1	692
Saint Martin's C	4.9	142
Seattle U	4.7	855
Whitworth C	4.6	367
Whitman C	4.2	213
Seattle Pacific U	4.2	578
Pacific Lutheran U	4.1	747
Western Washington U	3.8	1,227
U of Washington	3.7	3,546
Central Washington U	3.6	1,031
Walla Walla C	3.4	385
Washington St U	3.3	2,403
U of Puget Sound	2.8	1,022
U of Washington Sch of Dentistry	2.6	76
John Bastyr C	2.6	39
U of Washington Sch of Med	0.9	229
Lutheran Bible Inst	0.0	51

WEST VIRGINIA

Raleigh Co Voc-Tech Ctr	46.8%	47
West Virginia North CC Wheeling	36.7	259
Garnet Career Ctr	36.2	58
James Rumsey Voc-Tech Ctr	34.1	85
Southern West Virginia CC Williamson	31.0	87
Cabell Co Voc-Tech Ctr	26.3	38
Beckley C	26.2	225
West Virginia St C	25.9	522
Bluefield St C	25.8	497
Parkersburg CC	23.0	248
West Virginia C of Graduate Studies	22.2	54
Glenville St C	16.1	391
Marshall U main campus	15.9	1,631
U of Charleston	15.5	284
West Virginia Inst of Tech	15.4	447
Salem C main campus	14.9	322
Southern West Virginia CC Logan	13.2	91
Ohio Valley C	12.8	125
Potomac St C	12.3	203
Fairmont St C	11.2	779
Concord C	11.1	433
Wheeling C	8.3	169
Alderson Broaddus C	7.9	229
Davis & Elkins C	7.3	287
West Virginia U main campus	6.7	3,289
West Liberty St C main campus	6.6	470
West Virginia Wesleyan C	6.0	436
Shepherd C	5.7	279
Saint Mary's Hosp Sch of Nursing	5.6	54
Bethany C	4.1	193
West Virginia Sch of Osteopathic Med	0.7	146
Appalachian Bible C	0.0	47

WISCONSIN

Milwaukee-Area Tech C	35.8%	2,058
Gateway Tech Inst	32.1	866
Nicolet Voc-Tech Adult Education Dist	20.7	261
Blackhawk Voc-Tech Adult Education Dist	20.2	481
U of Wisconsin Baraboo Sauk Co Ctr	18.5%	54
Mount Senario C	18.3	246
U of Wis main campus 2-yr lower division	16.9	59
SW Wis Voc-Tech Adult Education Dist	16.6	610
Wis Indianhead Voc-Tech Adult Education Dist	16.1	853
U of Wisconsin Parkside	15.3	478
U of Wisconsin Rock Co	13.9	173
W Wis Voc-Tech Adult Education Dist	12.8	819
Mid-St Tech Inst Wisconsin Rapids	12.7	411
U of Wis Manitowoc Co	12.5	104
North Central Voc-Tech Adult Education Dist	11.3	520
Madison Area Tech C	11.2	1,281
U of Wisconsin Milwaukee	10.8	3,314
Waukesha Co Tech C	10.8	279
U of Wisconsin Barron Co	10.2	108
Voc-Tech Adult Education Dist One	10.2	1,014
U of Wis Fond Du Lac	9.9	111
Concordia C	9.8	244
Lakeshore Tech Inst	9.7	414
U of Wisconsin Fox Valley	9.6	177
Lakeland C	9.3	248
U of Wisconsin Superior	9.1	605
Fox Valley Tech C	9.0	647
Silver Lake C	8.8	102
Alverno C	8.7	460
U of Wis Marathon Co	8.3	241
U of Wisconsin Washington Co	8.3	109
Viterbo C	8.2	279
U of Wisconsin Waukesha Co	7.7	194
Carthage C	7.3	341
NE Wis Voc-Tech Adult Education Dist	6.5	661
Ripon C	6.3	224
U of Wisconsin Green Bay	6.2	810
U of Wis Sheboygan	6.2	130
Moraine Park Voc-Tech Adult Education Dist	6.1	326
U of Wisconsin Marinette Co	5.8	86
U of Wisconsin Oshkosh	5.6	2,111
Wisconsin Lutheran C	5.6	36
U of Wisconsin Wood Co	5.6	126
U of Wisconsin River Falls	5.4	1,065
Edgewood C	5.3	169
Carroll C	5.2	309
U of Wisconsin Stout	5.1	1,459
Northland C	4.8	146
Milwaukee Sch of Engineering	4.6	390
Maranatha Baptist Bible C	4.5	44
Cardinal Stritch C	4.4	562
U of Wis Stevens Point	4.4	1,970
Mount Mary C main campus	4.4	159
U of Wis Whitewater	4.3	1,797
Milwaukee Sch of the Arts	4.2	72
U of Wisconsin Eau Claire	4.1	2,123
Beloit C	4.0	248
U of Wisconsin La Crosse	3.9	1,978
Evangelical Deaconess Hosp Sch of Nursing	3.9	51
U of Wisconsin Platteville	3.9	1,127
Marquette U	3.8	2,396
U of Wisconsin Richland	3.5	57
U of Wisconsin Madison	3.5	6,423
Marian C of Fond Du Lac	2.7	150
Lawrence U main campus	2.0	204
Saint Norbert C	1.7	463
Medical C of Wisconsin	0.6	493
Bellin Memorial Hosp Sch of Nursing	0.0	30
Saint Joseph's Hosp Sch of Nursing	0.0	34
Milwaukee Co General Hosp Sch of Nursing	0.0	40
U of Wisconsin Med Sch	0.0	94

WYOMING

Central Wyoming C	15.3%	163
Northwest CC	14.9	281
Casper C	14.2	274
Sheridan C	13.3	135
Laramie Co CC	11.2	196
Eastern Wyoming C	9.3	107
Western Wyoming CC	4.6	65
U of Wyoming	3.5	1,805

GUAM

U of Guam	64.1%	359

PUERTO RICO

U of Puerto Rico Cayey	9.7%	31
U of PR main campus	3.5	141
U of PR Mayaguez	2.0	51
Inter American U of PR Metropolitan	1.9	53
Caribbean Ctr for Advanced Studies	0.0	48

VIRGIN ISLANDS

U of the Virgin Islands	7.6%	66

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Note Book

For more and more students, going back to college also means going back to work.

About 47 per cent of the students who attended college full time last year also held jobs, compared to only about 37 per cent in 1972. The data were gathered by the U.S. Labor Department and analyzed by the American Council on Education.

Of the full-time students who worked last year, more than half spent between 15 and 29 hours a week at their jobs.

College students tend to work most often in food-service, sales, and clerical positions, the council reported.

■

Elaine El-Khawas, vice-president of policy analysis and research for the council, said students who work too many hours must hurry through their course work.

"If someone is working 20 hours, that creates enough time pressure that they then end up taking a job-like attitude toward their courses," she said.

Alexander W. Astin, director of the Higher Education Research Institute at the University of California at Los Angeles, believes part-time jobs "actually facilitate the learning process." Mr. Astin said on-campus jobs of between 10 and 20 hours a week brought students into contact with faculty and staff members they might not otherwise meet.

■

A string of personal advertisements that began appearing in the Daytona Beach "News-Journal" in late July may have contributed to an increase in enrollment this fall at Daytona Beach Community College.

The ads were personal messages fabricated by college administrators and designed to promote the college's fall registration. One ad, for example, said: "Virgil, it's awfully hot in my house. If you'll fix my air conditioning, I'll let you take me to the movies. Signed, Sally." The next day, a responding ad from "Virgil" appeared. Virgil explained that he could fix Sally's air conditioning because of the training he received from the college's School of Technologies.

The *News-Journal* published 13 of the ads during the summer. This fall the college enrolled 10,125 students, a 6.3-per-cent increase over the fall 1988 enrollment. College officials believe the ads may have contributed to the increase.

"We were just trying to do something a little different to help personalize the college a little bit," said Bruce Cook, a senior editor in the college's Communication and Marketing Department.

Lee Lapensohn, director of marketing, said his department had chosen the ads to promote the college because they "have strong readership and people turn to the personals because they're amusing."

SAT, ACT Scores Remain Steady or Drop Slightly

Students from minority groups continue to show improvements

By SUSAN DODGE

NEW YORK

The average scores of high-school students on the verbal section of the Scholastic Aptitude Test fell slightly in the last academic year for the third year in a row, while the average mathematics score remained unchanged. Students from minority groups showed improvements or maintained their scores, most of which have increased steadily over the last decade.

The average composite score on the other major college-admissions test—the American College Testing Program's A.C.T. Assessment—decreased by 0.2 points to 18.6 for academic 1988-89. The four-part A.C.T., which measures students' proficiency in English, math, social studies, and natural sciences, is scored on a scale of 1 to 36. Average scores in all four subjects reflected slight declines.

Education Secretary Lauro F. Cavazos said last week that he was pleased to see that, over all, the scores of minority-group students had increased slightly. But he added: "Today's college-bound students are still scoring significantly below those of 20 years ago. This is especially disheartening at the end of a decade marked by substantial education-reform efforts."

College Board Plans Changes

The College Board, which sponsors the S.A.T., is continuing to make strong efforts to change the test, which is taken by about 1.1 million high-school students each year. Donald M. Stewart, president of the College Board, said he would like the test changed to include a writing sample, additional reading-comprehension questions, and math questions in a write-in format in addition to the multiple-choice form.

Plans to change the test stem in part from a gradual erosion of average verbal scores over the last two decades. From 1969 to 1980 the average verbal scores dropped 39 points, to a low of 424. The scores rose in the early 1980's, but have declined since the 1986-87 academic year. The average verbal score fell one point, to 427, in the past academic year.

Adding a verbal section with more em-

Continued on Following Page

SAT Averages by Sex, Race, and Ethnic Group

	Verbal section			Mathematical section		
	1988	1989	1-year change	1988	1989	1-year change
Men	435	434	– 1	498	500	+ 2
Women	422	421	– 1	455	454	– 1
American Indian	393	384	– 9	435	428	– 7
Asian-American	408	409	+ 1	522	525	+ 3
Black	353	351	– 2	384	386	+ 2
Mexican-American	382	381	– 1	428	430	+ 2
Puerto Rican	355	360	+ 5	402	406	+ 4
Other Hispanic	387	389	+ 2	433	436	+ 3
White	445	446	+ 1	490	491	+ 1
Other	410	414	+ 4	460	467	+ 7
All	**428**	**427**	– 1	**476**	**476**	**0**

SOURCE: THE COLLEGE BOARD

FACT FILE: Average ACT Scores by Sex, Race, and Academic Preparation

	English			Mathematics			Social studies			Natural sciences			Composite		
	1988	1989	Change	1988	1989	Change	1988	1989	Change	1988	1989	Change	1988	1989	Change
Men	18.0	17.8	-0.2	18.4	18.3	-0.1	18.4	18.1	-0.3	22.8	22.6	-0.2	19.6	19.3	-0.3
Women	19.0	18.9	-0.1	16.1	16.1	0.0	16.6	16.4	-0.2	20.2	20.0	-0.2	18.1	18.0	-0.1
American Indian	14.7	14.6	-0.1	12.8	12.8	0.0	13.3	13.0	-0.3	18.1	17.9	-0.2	14.9	14.7	-0.2
Asian-American	18.4	18.5	+0.1	21.0	21.2	+0.2	17.7	17.9	+0.2	22.1	21.9	-0.2	19.9	20.0	+0.1
Black	14.5	14.4	-0.1	11.3	11.6	+0.3	12.2	12.0	-0.2	15.9	15.7	-0.2	13.6	13.6	0.0
Mexican-American	15.9	15.6	-0.3	14.0	14.1	+0.1	14.1	13.7	-0.4	18.2	17.8	-0.4	15.7	15.4	-0.3
Other Hispanic	16.9	16.8	-0.1	15.8	15.9	+0.1	15.8	15.5	-0.3	19.3	19.2	-0.1	17.1	17.0	-0.1
White	19.2	19.2	0.0	18.0	17.9	-0.1	18.3	18.1	-0.2	22.3	22.1	-0.2	19.6	19.4	-0.2
Completed core curriculum*	20.2	20.1	-0.1	20.4	20.2	-0.2	19.7	19.5	-0.2	23.6	23.3	-0.3	21.1	20.9	-0.2
Did not complete core*	17.4	17.0	-0.4	14.8	14.6	-0.2	15.9	15.4	-0.5	19.8	19.5	-0.3	17.1	16.7	-0.4
All	**18.5**	**18.4**	**-0.1**	**17.2**	**17.1**	**-0.1**	**17.4**	**17.2**	**-0.2**	**21.4**	**21.2**	**-0.2**	**18.8**	**18.6**	**-0.2**

* A core curriculum includes at least four years of English and at least three years each of mathematics, natural sciences, and social studies.

SOURCE: AMERICAN COLLEGE TESTING PROGRAM

In Buyer's Market, Colleges Turn to Posh Dorms and Fast Food to Lure Students

© 1989 BOB LINDER, FOR THE CHRONICLE

Among the living quarters at Southwest Missouri State is Kentwood Hall (above), a renovated luxury hotel that the university bought two years ago.

By MICHELE N-K COLLISON

SPRINGFIELD, MO.

When Dina Causo and Jennifer Jessup began their tours of college campuses this summer, they thought many of the residence-hall rooms they visited looked like dark, cramped caves.

Then they came to Southwest Missouri State University here and saw Hammonds House, a state-of-the-art residence hall with plush carpeting, microwave ovens, and an Apple computer in each suite. The classy surroundings impressed the two high-school seniors, who say they'll apply to attend the institution next fall. They believe they'll be comfortable at Hammonds House, which also offers sun-tanning beds and a convenience store, and delivers food to students' rooms.

"Other dorms look like army barracks, with bunk beds and faded curtains," says Ms. Causo, a senior at a St. Louis high school. "But I could see myself wanting to live and study here."

More and more, colleges such as Southwest Missouri State are building fancy resi-

Continued on Page A39

SAT, ACT Scores Remain Steady or Drop Slightly

Continued from Preceding Page

phasis on reading and writing skills could emphasize to high-school teachers and students the importance of mastering those skills, Mr. Stewart said.

The average scores in mathematics remained steady last year at 476. That result may reflect changes made in high-school math and science courses since 1983, when an Education Department commission published the report "A Nation At Risk," Mr. Stewart said. The report criticized high-school curricula as mediocre and sparked a range of efforts by states and schools to upgrade teaching methods and course material.

The two-part S.A.T. is measured on a 200- to 800-point scale, with a combined 1,600 a perfect score.

"It's evidence that we're not doing any better. It makes you wonder whether to weep or get angry."

The S.A.T. was taken by 1,088,223 students in academic 1988-89, a 4-per-cent decline from 1987-88.

The American College Testing Program has already instituted changes in the A.C.T. This fall, for the first time, it will offer a revised test that puts more emphasis on writing, analytical, and problem-solving skills, and provides more-detailed scores (*The Chronicle*, November 16, 1988.)

The A.C.T. was taken by more than 855,000 high-school seniors last academic year, a 1.5-per-cent rise over the previous year's total.

Reaction to both sets of test scores was mixed last week. Chester E. Finn, Jr., professor of education and public policy at Vanderbilt University and a top Education Department official in the Reagan Administration, said the most recent scores were disappointing because they did not show any impact from states' and schools' efforts to upgrade their curricula and insure that students learn more.

"It's evidence that we're not doing any better," he said. "It makes you wonder whether to weep or get angry."

Use of Tests Questioned

Some college administrators, however, said education officials should not use standardized test scores to judge improvements in the schools.

Since not all high-school seniors take standardized tests, it is misleading to use test scores to indicate the overall progress of education reform, said Frank Burtnett, executive director of the National Association of College Admissions Counselors.

Although students in most minority groups continued either to make gains in their average S.A.T. scores or to hold steady in their progress, a large gap remained last year between their scores and those of white students. White students' combined average score, for example, was 937, compared to black students' 737. The score for black students was the same as in academic 1987-88.

The average combined score for Asian students was 934, up four points from academic 1987-88. For Puerto Rican students it was 766, an increase of nine points.

Mr. Stewart said the gap between white students and minority students "reflects disparities that continue to exist in society." He said: "Inequities continue to exist in the educational opportunities available to students."

The College Board also found again last year that students' scores go up as their family income rises. For example, students whose parents earned less than $10,000 annually had an average combined score of 780, while those whose families earned between $50,000 and $60,000 had an average combined score of 944.

As part of its efforts to make changes in the S.A.T., the College Board has conducted pilot tests of potential new questions at about 900 high schools across the country. It will hold additional pilot tests at high schools and college campuses this fall.

Any changes in the S.A.T. would have to be approved by the College Board's S.A.T. committee, the board's officers, and its board of trustees. Board officials said new changes in the test could come in 1992 or 1993. The last major changes came in 1974, when the math and verbal sections were shortened to give students time for an addition to the verbal section called the Test of Standard Written English, which tests grammar.

The latest interest in altering the test came in response to College Board research predicting that more non-traditional students and immigrants will take the S.A.T. i the future. Board officials believ an essay question could more ade quately determine their abilitie than could multiple-choice ques tions. The changes also would be response to the ways in which th S.A.T. is being used to place stu dents in classes and give them aca demic advice, Mr. Stewart said.

FACT FILE: Average SAT Scores by State, Selected Years

	Proportion taking SAT	Verbal				Mathematical			
		1978	1983	1988	1989	1978	1983	1988	1989
Alabama	8%	438	466	480	482	469	508	520	520
Alaska	42	458	437	441	443	485	468	475	480
Arizona	23	492	465	455	452	529	505	500	500
Arkansas	7	483	482	479	471	514	518	516	515
California	44	427	421	424	422	466	474	484	484
Colorado	29	473	469	460	458	516	520	511	508
Connecticut	75	438	433	436	435	469	465	472	473
Delaware	60	436	433	433	435	477	467	466	468
District of Columbia	67	386	399	405	407	401	427	434	439
Florida	47	428	423	422	420	461	464	468	467
Georgia	59	394	390	404	402	424	428	444	445
Hawaii	52	398	393	408	406	468	471	480	482
Idaho	17	488	479	467	465	521	513	501	500
Illinois	17	463	462	464	462	511	517	520	520
Indiana	55	413	410	412	412	457	454	458	459
Iowa	5	516	520	513	512	569	573	577	572
Kansas	10	503	498	494	495	550	540	541	545
Kentucky	10	473	475	475	477	510	513	515	519
Louisiana	9	464	469	476	473	501	502	513	513
Maine	59	429	427	430	431	467	464	466	466
Maryland	60	431	427	433	434	466	466	475	480
Massachusetts	72	430	427	432	432	465	463	474	473
Michigan	12	459	458	457	458	511	511	513	514
Minnesota	15	497	482	470	474	550	538	531	532
Mississippi	4	476	474	482	472	505	507	519	516
Missouri	13	465	466	471	471	506	510	519	518
Montana	20	493	480	471	469	549	535	529	523
Nebraska	10	484	494	487	487	538	546	545	543
Nevada	23	457	441	440	439	494	480	486	487
New Hampshire	66	446	444	446	447	486	481	487	485
New Jersey	67	419	418	424	423	451	455	469	471
New Mexico	11	485	484	478	483	524	519	524	532
New York	69	431	422	420	419	471	466	469	471
North Carolina	57	390	394	401	397	424	431	440	439
North Dakota	5	510	505	498	500	552	560	555	567
Ohio	23	459	458	452	451	504	504	499	497
Oklahoma	8	483	489	483	479	527	521	522	522
Oregon	49	437	432	441	443	469	469	482	484
Pennsylvania	63	427	425	424	423	467	461	462	463
Rhode Island	63	425	422	431	429	463	459	469	466
South Carolina	55	378	383	400	399	409	415	438	439
South Dakota	6	519	517	511	498	564	560	559	543
Tennessee	12	477	483	485	486	514	519	524	523
Texas	43	425	412	417	415	460	453	462	462
Utah	5	516	508	498	499	564	545	536	537
Vermont	63	434	434	437	435	473	472	472	470
Virginia	59	428	427	430	430	462	463	472	472
Washington	39	484	463	448	448	525	510	494	491
West Virginia	15	465	466	451	448	506	512	496	491
Wisconsin	12	479	473	473	477	540	533	534	536
Wyoming	14	498	492	474	462	542	530	527	516
National averages	**42%**	**429**	**425**	**428**	**427**	**468**	**468**	**476**	**476**

Note Percentages are based on the number of high-school graduates in 1988 as projected by the Western Interstate Commission for Higher Education and the number of high-school seniors who took the S.A.T. in 1988.

SOURCE: THE COLLEGE BOARD

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Backers of Standardized-Test Reforms Publish Guide for Students

A group that advocates reform in standardized testing is promoting a new book aimed at pointing out flaws in the Scholastic Aptitude Test and telling students what their rights are as test takers.

The book, *Standing Up to the S.A.T.*, was published to coincide with the release by the College Board last week of test scores for the 1988-89 academic year.

Written by the National Center for Fair & Open Testing Inc., also called FairTest, the book criticizes what the group says are the test's biases against low-income students, students from minority groups, and female test takers.

'Culturally Narrow'

"The S.A.T. is a culturally narrow test that systematically discriminates against lower-income, minority, female, bilingual, and rural students. It can also cause problems for students who are unusually clever or creative," the book says.

Standing Up to the S.A.T. offers tips in a chapter called "FairTest's S.A.T. Bill of Rights." It says test takers have the right to:

- Sound test-preparation information, including tips from the College Board on test-taking strategies.
- A properly administered test, including accurate timing and a testing room free from construction noise.
- Ethical testing procedures that seek students' consent before asking them to complete experimental sections of the S.A.T., which are used for research purposes.
- Privacy of scores and other personal data.
- Due process for any challenge to the test and access to data about the test's accuracy. Test takers also should be able to verify that their tests were scored correctly and that the results were use properly.

College Board officials maintai that the book contains many mi leading statements. They say th one of their most important prior ties is making sure that the test fair.

In a statement, Fred Moreno, d rector of public affairs for the Co lege Board, said: "A blatant exan ple of the use of half-truth and i nuendo in the book is the so-calle 'S.A.T. Bill of Rights,' which in plies that the College Board and th Educational Testing Service a denying students all the rights lis ed. In fact, however, students a ready *have* all the rights that Fai Test is calling for."

The book is a "rehash of o charges that the Board, researc ers, educators, and other profe sionals have answered before Mr. Moreno said.

—SUSAN DOD

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News Summary

Articles on inside pages

Scientists hope frozen remnants of the last ice age may help answer some pressing environmental questions: Page A4.

The National Academy of Sciences is urging new procedures for reviewing proposed field tests of genetically modified organisms: Page A4.

Princeton's adjustment to the presidency of Harold T. Shapiro has been a protracted process: Page A18.

The lobbyist for private higher education in Michigan is known for his zealous devotion to his cause as well as his skill in winning financial and political support: Page A25.

Sen. Robert C. Byrd of West Virginia has stopped blocking federal support for several controversial campus projects—except for one in his own state: Page A25.

The Senate was set last week to vote on a 9-per-cent increase in the budget of the National Science Foundation: Page A25.

Children of migrant workers are attending college under a federal program on five campuses: Page A39.

Members of the National Association of Intercollegiate Athletics will consider next week a proposal to shorten sports seasons: Page A44.

Academic and political leaders in Mexico are trying to reverse a domestic brain drain in science and technology: Page A45.

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'COCA-COLA U.,' 10 YEARS LATER

Transformation of Emory: a Small Atlanta Institution Is Using a Historic Gift to Vault Into Big-Time Ranks

By LIZ McMILLEN

ATLANTA

Ten years after the Coca-Cola magnate Robert W. Woodruff bestowed a historic $105-million gift upon Emory University, this wooded campus in the northeastern Atlanta suburbs has all the growing pains of an adolescent.

In one sudden stroke, Emory was granted the rarest of opportunities: the chance to transform itself. Over the past decade, the university has used that opportunity to do some hard thinking about how much of its former self it wants to shed and how much it wants to keep.

The gift, which went permanently into Emory's endowment, has generated more than $108-million in income, which the university has plowed into academic programs virtually across the board.

It has provided millions of dollars for scholarships, professorships, research and faculty recruitment, and special projects like the Carter Center, a scholarly institute named for the former President.

Mr. Woodruff's gift, still the largest ever in higher education, is a measure of one man's impact on a higher-education institution, a feat that recalls the individual philanthropy of an another era, such as that of John Rockefeller or Andrew Carnegie.

Others Face Cutbacks

Emory's fortunes appear even more unusual when weighed against the recent experiences of other private research universities that are struggling with hard fiscal choices. The Johns Hopkins, Stanford, and Columbia Universities, to name just three, are all entering this academic year either with

Continued on Page A36

Coca-Cola magnate Robert Woodruff gave Emory U. more than $200-million in his lifetime, $105-million of it in a single gift 10 years ago.

Many Political Leaders Use 'Education Summit' to Maneuver on Issues

By THOMAS J. DeLOUGHRY

WASHINGTON

Political leaders spent much of last week jockeying for position in advance of this week's "Education Summit."

While the maneuvering politicians insisted that their primary goal was to improve the nation's schools and colleges, many education lobbyists were skeptical about all the hoopla.

"It's dueling press conferences," said one college lobbyist who asked not to be identified. "I don't know of anybody who thinks it's going to have much impact."

Whatever the summit's long-range effects, its approach prompted both Republicans and Democrats to take time—in one of Congress's busiest seasons—to discuss education.

President Bush, who is bringing most of his Cabinet to the University of Virginia for the two-day meeting with governors, held a third White House meeting with educators last week to get their thoughts on what should be discussed at the summit.

Democrats at Model High School

Congressional Democrats, meanwhile, traveled to a model high school in a Washington suburb to introduce their package of educational "performance goals" for schools, colleges, and governments.

The Democrats proposed six goals that they said could be met within 10 years with the cooperation of education and government officials. The goals included increas-

Continued on Page A30

Suit Charges 12 Private Colleges With Conspiracy; Antitrust Investigation Spreads to 51 Institutions

By SCOTT JASCHIK

As private colleges last week developed strategies to deal with a Justice Department investigation of possible antitrust violations, 12 of them were faced with yet another legal problem: a class-action lawsuit by a student who claimed they had engaged in illegal collusion to set tuition rates and award financial aid.

The Justice Department probe, and the lawsuit based on that inquiry, both center on the propriety of colleges' sharing certain types of information when they develop their budgets and tuition policies.

College officials, while insisting that they have not violated the law, are becoming more and more fearful of the consequences of the investigation. Simply complying with the Justice Department requests is proving to be extremely expensive, they say. And should any antitrust lawsuit be successful, the costs could be astronomical, because federal law allows the awarding of triple damages in price-fixing cases.

Colleges May Seek Settlement

As a result, some college officials may propose to the Justice Department that, in return for the colleges' stopping certain as-yet-unspecified practices, the department curtail its inquiry.

"Anything that would prevent a lot of costly legal fees and time lost on this is something we ought to explore," said

Continued on Page A30

Students Are Facing Higher Fees for Campus Services

By SUSAN DODGE

Thousands of college students returned to their campuses this fall to find that tuition is not the only thing that has gone up. Higher fees for university services are common, and some students worry that the charges will strap their budgets.

The fees, which students are required to pay, are levied by most public institutions and some private colleges and universities to cover the cost of a wide variety of campus services. Commonly called "student-activity fees," the money pays for use of university health centers, computers, libraries, student unions, and gymnasiums. At some institutions, the fees also cover the cost of season football and basketball tickets, as well as the operating costs of the student government.

Following are some of the campuses where increases have occurred:

- Michigan State University established new fees for engineering and veterinary students this year. The former are required

Continued on Page A41

Academic Leaders in Hong Kong Fret Over Relations With China

Recent events in China have created new uncertainties about the prospects for Hong Kong's system of higher education: Page A46.

MARGINALIA

From *The South End*, the student newspaper at Wayne State University:

"The Arthur W. Neef Law Library was closed Monday after several people complained about a strong order in the building which made some people sick."

Too much orderliness can get to you, at times.

■

Ad in the *Summer Bruin* at the University of California at Los Angeles:

"When you advertise with the UCLA *Summer Bruin*, you are guarenteed an advertising staff committed to professionalism and excellence."

Uh-huh.

■

From *Three Centuries at the Royal Library* (Copenhagen):

"The modern user may be dismayed to have to search for books on Greece under Turkey, or Czechoslovakia under the Austro-Hungarian Empire. But the system was established in the Europe of the Congress of Vienna, where it must be remembered that Bohemia was governed from Vienna, and Greece was a vassal state to the Ottoman Empire. The librarian who classified books in 1816 had no way of knowing of the new national states of the twentieth century, more than we can know where borders will lie in the year 2000. . . ."

■

Notice in *Spectra*, a publication of the Speech Communication Association:

"SCA is excepting nominations for five editoral positions. The calls for nominations were decribed in detail in the April *Spectra*.

"Nomination are sought for . . .

Hurry, hurry!

■

Higher mathematics at Northern Kentucky University (from the campus paper, *The Northerner*):

"This year enrollment reached an all time high of 10,300. Vice-President Gene Scholes of Administrative Affairs said, 'At the end of the last semester we had 3,500 parking spaces on campus. We have added another 600 spaces for a total of 4,200 parking spaces. We have sufficient parking for the students which don't come at the same time.' "

■

Letter to *The College World*, the student newspaper at Adrian College:

"This letter is a complaint to the yearbook production staff. . . . I was very disappointed in the book for various reasons:

"1. There are mispellings of people's names throughout the yearbook. . . ."

Horors! —C.G.

In Brief

Study Finds Cal. Needs 16 More 2-Year Colleges

SACRAMENTO, CAL.—The California Community Colleges system has estimated it will need 16 new two-year colleges by the year 2005 to accommodate a projected enrollment increase of 400,000.

In addition, a staff report said, many of the existing 107 community colleges, which now enroll about 1.3 million students, should be expanded. The total cost of the new colleges and the expansion of existing ones was estimated at $1.8-billion.

The University of California has estimated that during the same general period, it will need to increase the number of its campuses to 12 from the existing 9, and the 20-campus California State University system has proposed adding five campuses to meet growth projections.

The California Postsecondary Education Commission, which oversees higher-education planning in the state, is expected to issue its report on expansion needs early next year.

Former President Sentenced to 10 Years in Prison

OKLAHOMA CITY

A federal district judge here has sentenced a former president of Southeastern Oklahoma State University to 10 years in prison for defrauding the state and the institution's foundation of more than $3.4-million.

Leon Hibbs, the ex-president, was convicted in July of nepotism and of giving hundreds of students scholarships by submitting false payroll claims to the state. He also was found to have diverted some of that money—including $39,000 spent on home furnishings—for personal use.

Mr. Hibbs had served as the university's president for nearly 20 years before retiring in 1987 amid allegations of wrongdoing.

Chief Judge Ralph G. Thompson denied Mr. Hibbs's request for a sentence of community service, saying the former president had already "exploited" his opportunity to serve the public. Mr. Hibbs was also ordered to pay back more than $1-million to Southeastern State University's foundation.

—COURTNEY LEATHERMAN

Teaching Group Urged to Rethink New Standards

WASHINGTON—The American Association of Colleges for Teacher Education has decided not to support the policy on certification adopted by the National Board for Professional Teaching Standards.

In a unanimous vote, the association's directors urged the standards board to reconsider its position, announced in July, on requirements for candidates seeking voluntary certification. It said the requirements were "too broad, loosely defined, and permissive" to advance the profession.

The standards board established only two prerequisites for candidates—graduation with a baccalaureate degree in any subject from an accredited institution and three years of teaching experience.

The association, which represents more than 700 colleges and universities with teacher-education programs, objected to the board's decision not to tie certification to graduation from an accredited teacher-education program or to state licensure.

In a statement last week, the association said it could not endorse any proposal "that fails to go beyond existing standards to protect the public and enhance the teaching profession."

Eckerd Is Going to the Dogs ... and Hamsters, Skunks ...

ST. PETERSBURG, FLA.

When students attending Eckerd College arrived on their campus earlier this month, they didn't come alone. Trailing behind or running on ahead were a variety of animals, ranging from a Saint Bernard, to a ferret, to a python.

For the past 10 years, the Florida college has set aside two residence halls where students may live with their pets. Officials say the students have about 40 dogs and cats and an additional 100 caged animals, such as hamsters, lizards, and skunks (which must be descented before coming to campus).

"If students grow up with a pet, they shouldn't have to leave it at home," says Wayne Harwell, the college's director of housing. "We felt it would be better for their emotional stability to let them bring the pet to school."

Pet owners do have to follow rules established by the college's Pet Policy Board, which is governed by students. Snakes may be no longer than six feet, animals can't roam around campus unattended or fight with other animals, and owners may walk their pets only in specified areas on the campus. Students also are responsible for cleaning up after their pets.

'A Real Conversation Piece'

Students say they like having pets in their rooms. "Chester will always be there for me no matter what grade I get on a test," says Tina Alligood, a senior who brought her kitten to college.

Most students on the campus like the animals, and the pets usually draw a crowd when their owners take them outside.

Laura A. Brink, a sophomore, walks across the campus with her python, Cha, wrapped around her neck. "I must say, she makes a real conversation piece," Ms. Brink says. "Most students are used to the dogs and cats. But Cha really stands out."

Some of the institution's maintenance workers, however, don't much care for the pets, especially Tracey J. Engel's ferret, Tiki. "Everybody loves Tiki except the cleaning ladies," says Ms. Engel, a senior. "One day he was bopping down the hall, and the lady screamed and ran down the hall. So I try not to scare them."

—MICHELE N-K COLLISON

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Eckerd sophomore Laura Brink, with her pet python, Cha: "Most students are used to the dogs and cats. But Cha really stands out."

Parents of Slain Student Settle Suit Against Cornell

ALBANY, N.Y.—The parents of a Cornell University student who was murdered on the campus six years ago agreed to drop their civil suit against the university one day after the trial began in U.S. District Court here.

As part of the in-court settlement, Cornell agreed to pay the parents of Erin C. Nieswand $200,000. But there was no finding of negligence on the part of the university in the 1983 shooting death of Ms. Nieswand.

Su Yong Kim was convicted of killing Ms. Nieswand and her roommate, Young Hee Suh, in their dormitory room. Mr. Kim, who was not associated with Cornell, allegedly was obsessed with Ms. Nieswand and became enraged when she refused to see him.

The civil suit charged Cornell with negligent security practices—an allegation that university officials have denied. They said all dormitories were kept locked 24 hours a day when Ms. Nieswand was killed because students were studying for final exams.

Ms. Suh's family has sued Cornell in state court on the same grounds, but no trial date has been set in that case.

Sorority Members Move After Attack on House

PHILADELPHIA—Ten white students at Temple University who were living in a sorority house in a predominantly black neighborhood moved out this month after neighborhood youths attacked their home.

The sorority, Lamda Kappa Sigma, was sponsoring a party with two fraternities when an argument erupted between a white disc jockey attending the party and a black man from the neighborhood, said Lieut. Marshall R. Smith, who works in the Philadelphia police department's conflict-resolution unit. The disc jockey allegedly pushed the black man, racial slurs were exchanged, and a scuffle began, which was subsequently broken up by Temple University police.

After the police left, a group of neighborhood youths returned to the home, where they broke the first-floor windows and chopped down the front door with an ax, Lieutenant Smith said. The 10 members of the sorority moved out of the house a day later.

Police are continuing to investigate what they have classified as a racial incident, he said.

27 Sue Testing Service for Invalidating Results

GLENDALE, CAL.—A group o
27 students from Crescenta Val

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Migrant Workers' Children Attend College Under a Federal Program

Continued from Page A39

ed at Boise State University, Oregon State University, the University of Tennessee at Knoxville, and California State University at Sacramento. The programs are offered in conjunction with the High School Equivalency Program, which offers migrant youngsters who have dropped out the chance to work toward high-school degrees. The U.S. Education Department this year spent $7.2-million on the High School Equivalency Program and $1.5-million on CAMP.

The college program does not require matching funds from the campuses involved, but several of them supplement their federal money with university contributions for scholarships and other programs.

Long Hours in the Fields

Children of migrant workers face myriad problems that, too often, discourage them from pursuing a college education, say CAMP directors. Because they spend much of the year traveling with their families, they often miss part of the school year and fall behind academically.

In addition, most work long hours in the fields after classes and have no time to study. They often receive little encouragement from their high-school counselors or parents, many of whom dropped out of elementary or high school.

"Many of these students had been given up on, and they're nice, smart kids," says John H. Jensen, who directs the CAMP program at Boise State University. "They may have a poor track record in coursework, but it's not because they aren't intelligent."

"My little brothers and sisters are out there working, and I sometimes feel I should be out there with them."

One student who thought college would be beyond his reach is Mr. Ramirez, who grew up working the fields alongside his parents and eight siblings in Rupert, Idaho.

"I'd get out of school at around 3:30 and work until midnight, so there was no time for anything else," he says. "During the summer, we hoed beets, and during the winter, I worked in a potato plant. I really wanted to go to college to get away from that."

Mr. Ramirez's high-school counselors told him about CAMP, and he decided to give it a try. After a year in the program, he spent the past summer working as a clerk at the Iowa Department of Transportation. Mr. Ramirez, who just began his sophomore year at Boise State, hopes eventually to work for a government agency "helping other people in my situation."

'This Is the Only Way Out'

Even though he has excelled academically, Mr. Ramirez says he occasionally feels guilty being in college while the rest of his family is out in the fields. "My little brothers and sisters are out there working, and I sometimes feel I should be out there with them," he says.

Still, he doesn't have to look far for motivation.

"Deep down, I know this is the only way out, and I have to work hard for it," he says. "I'm determined not to end up back where I came from."

© 1989 ANDY ARENZ, FOR THE CHRONICLE

Daniel Ramirez, in his hometown of Rupert, Idaho: "During the summer, we hoed beets, and during the winter, I worked in a potato plant. I really wanted to get away from that."

Ms. Cortez of Texas A&M, whose parents disapproved of her decision to go to college, says she had problems similar to Mr. Ramirez's.

She says she cried herself to sleep the first few weeks at Saint Edwards, wondering if she had made the right decision. "I kept thinking about them in the fields, and how hot it was," says Ms. Cortez, who grew up in a rural community in Texas's Rio Grande Valley. "But I truly believed I was doing something that would be good for the family in the long run."

Valedictorian's Busy Schedule

Her father had dropped out of school in the second grade, and her mother in the sixth. All of the family's 12 children worked to keep food on the table.

Despite her parents' objections, Ms. Cortez followed the advice of her teachers and entered the CAMP program after graduating from high school as class valedictorian. She had managed to excel despite a chaotic schedule that meant moving several times during the academic year to follow the cotton-growing season. At Saint Edwards she earned a nearly perfect grade-point average and, in her senior year, won the university president's Woman of the Year award.

Now a doctoral student in physical chemistry at Texas A&M, she hopes to become a college professor and to serve as a role model for other migrant farm children.

"I'd like to help people who say they can't do it, because I used to think that," says Ms. Cortez. "I don't believe it any more."

Many migrant students are on the road with their parents when the time comes to file college financial-aid forms, says Miriam Orzech, assistant vice-president for academic affairs at Oregon State. Recruiters for the CAMP program visit high schools and social-service agencies in areas with large migrant populations in an effort to educate students and their families about opportunities they might be missing.

One of the most important duties of CAMP advisers is to help students get as much scholarship money as they qualify for. That is particularly important after their freshman year, when they will no longer be financially supported by the CAMP program. At Saint Edwards, migrant students typically receive grants and scholarships totali around $8,500 [redacted] courses and live in the same dormitories as traditional students. But they receive much more extensive counseling and support services, which can include remedial classes and special tutoring.

The college and high-school programs for migrant students survived numerous brushes with the budget ax during the Reagan Administration. CAMP administrators say the money currently being spent—the same amount as last year—is much too low.

"One of the things that is glaringly obvious to all of us in migrant education is that the need is far greater than the resources being made available to us," says Ms. Orzech of Oregon State. "If you put all five CAMP programs together, you serve a total of a few hundred students, and there are many thousands of students out there who could benefit."

FACT FILE: Earned Degrees Conferred, 1986-87

	Bachelor's degrees			Master's degrees			Doctor's degrees		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Agriculture and natural resources	10,314	4,677	14,991	2,461	1,062	3,523	871	178	1,049
Architecture and environmental design	5,590	3,332	8,922	2,073	1,069	3,142	66	26	92
Area and ethnic studies	1,278	2,062	3,340	452	399	851	73	59	132
Business and management	128,958	112,198	241,156	45,211	22,285	67,496	839	259	1,098
Communications, communications technologies	18,155	27,253	45,408	1,606	2,331	3,937	158	117	275
Computer and information sciences	25,929	13,735	39,664	5,995	2,496	8,491	322	[illegible]	374
Education	20,770	66,345	87,115	19,642	55,859	75,501	3,117	3,792	6,909
Engineering, engineering technologies	80,347	12,727	93,074	19,841	2,852	22,693	3,557	263	3,820
Foreign languages	2,791	7,393	10,184	517	1,229	1,746	184	257	441
Health sciences	9,177	54,029	63,206	3,887	14,539	18,426	564	649	1,213
Home economics	1,116	13,826	14,942	256	1,814	2,070	65	232	297
Law	370	808	1,178	1,423	520	1,943	79	41	120
Letters	12,684	24,449	37,133	2,140	3,983	6,123	515	666	1,181
Liberal/general studies	9,312	12,053	21,365	459	667	1,126	15	14	29
Library and archival sciences	20	119	139	796	3,019	3,815	18	39	57
Life sciences	19,641	18,473	38,114	2,539	2,415	4,954	2,226	1,197	3,423
Mathematics	8,834	7,655	16,489	2,024	1,297	3,321	599	126	725
Military sciences	357	26	383	81	2	83	0	0	0
Multi/interdisciplinary studies	7,597	8,805	16,402	1,764	1,277	3,041	174	102	276
Parks and recreation	1,636	2,471	4,107	213	263	476	20	12	32
Philosophy and religion	3,840	2,136	5,976	698	410	1,108	329	93	422
Physical sciences	14,302	5,672	19,974	4,243	1,409	5,652	3,038	634	3,672
Protective services	7,974	4,956	12,930	719	300	1,019	15	3	18
Psychology	13,332	29,536	42,868	2,856	5,348	8,204	1,458	1,665	3,123
Public affairs	4,537	9,624	14,161	6,191	10,841	17,032	216	182	398
Social sciences	53,879	42,306	96,185	6,294	4,103	10,397	2,026	890	2,916
Theology	4,331	1,379	5,710	3,225	1,656	4,881	1,108	128	1,236
Visual and performing arts	13,783	22,440	36,223	3,757	4,749	8,506	447	345	792
All fields	480,854	510,485	991,339	141,363	148,194	289,557	22,099	12,021	34,120

	Professional degrees				Professional degrees		
	Men	Women	Total		Men	Women	Total
Chiropractic	1,982	673	2,655	Pharmacy	351	510	861
Dentistry	3,603	1,138	4,741	Podiatry, podiatric medicine	468	122	590
Law	21,643	14,529	36,172	Theological professions	5,794	1,387	7,181
Medicine	10,566	5,054	15,620	Veterinary medicine	1,150	1,080	2,230
Optometry	697	385	1,082				
Osteopathic medicine	1,206	412	1,618	All fields	47,460	25,290	72,750

SOURCE: U.S. DEPARTMENT OF EDUCATION

C2175-1

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News Summary

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People with AIDS could live longer if their doctors paid more attention to nutrition, a scientist says: Page A4.

The French Revolution is sparking new turmoil as scholars disagree over its origin and meaning: Page A4.

Teacher-education programs, facing tough new standards, are being denied reaccreditation at a rate of 3 in 10: Page A13.

Emphasizing diversity could backfire, speakers said at a meeting on undergraduate education: Page A13.

The Senate passed an appropriations bill for education last week, and Congress started work on temporary spending measures: Page A20.

In Kansas, voters and lawmakers back a "Margin of Excellence" for state universities: Page A20.

At last week's Education Summit, President Bush stopped by a lively discussion about higher education. The U. of Virginia won praise for its hospitality: Page A21.

Admissions offices at 44 colleges will no longer publicize the average S.A.T. scores of freshmen: Page A37.

Marching-band members at the U. of Southern California attend "boot camp for musicians": Page A37.

An unwanted football team is being disavowed by the U. of Texas–Pan American: Page A41.

Canadian institutions can't afford to keep up with the demand for liberal-arts classes: Page A43.

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Hesburgh and Friday to Head Knight Panel on Reforming Sports

By DOUGLAS LEDERMAN

WASHINGTON

Bemoaning the damage that sports scandals are doing to the integrity of American colleges, two of higher education's elder statesmen and a major foundation last week announced the formation of a national commission designed to build consensus for the reform of big-time college athletics.

The independent commission, which will draft a reform agenda and lobby for it over the next 18 months, will be financed by the Knight Foundation—a philanthropy in Akron, Ohio—and be headed by the Rev. Theodore M. Hesburgh, president emeritus of the University of Notre Dame.

Father Hesburgh and the commission's vice-chairman, William C. Friday, president emeritus of the University of North Carolina system, said at a news conference here last week that the problems facing college sports are relatively obvious—too much money, an overemphasis on winning, and too little concern about educating athletes.

Solutions Called Evident

The solutions, too, they said, are evident. "You don't have to go to the moon and back to find the answers to what needs to be done," said Father Hesburgh.

The panel's toughest task, Mr. Friday and Father Hesburgh agreed, will be to create a climate in which college presidents can work for change without fearing for their jobs.

"We must develop the political will among the academic leadership to address these problems and do something about them," said Mr. Friday. "The time has come, everybody understands what the difficulties are, and we can do something about them."

Judging by the only other appointment to the commission thus far, it appears that the effort will have the support of the college-sports establishment. Richard D. Schultz, executive director of the National Collegiate Athletic Association, has agreed to become the panel's third mem-

Continued on Page A42

Investigation Into Tuition Fixing Spreads; 55 Institutions Now Say They Are Targets

Justice Dept.'s inquiry centers on groups of private colleges

By SCOTT JASCHIK

WASHINGTON

The Justice Department's investigation of possible antitrust violations by colleges and universities is now concentrating on various groups and categories of colleges.

By the middle of last week, all of the members of the Great Lakes Colleges Association, a group of 12 liberal-arts colleges in Indiana, Michigan, and Ohio, had been notified that they were part of the inquiry, which focuses on the way private colleges set tuition rates and award financial aid to students.

The 55 colleges now known to be under investigation fall into four groups. Two groups are formal organizations, Great Lakes and the Overlap Group, a consortium of 23 elite Northeastern institutions that holds periodic meetings to compare information about common applicants.

The remaining colleges fall into two categories. Eight of the institutions are women's colleges, of which six are located in the South. An additional 12 private colleges are among the more expensive in the nation; most have tuition and fees of more than $13,000, compared with the average of $8,737 at private, four-year colleges.

Higher-education officials say the nature of the Justice Department investigation is making colleges wary of cooperating with one another in any way that could be construed as price fixing, even when college officials are confident that their activities are legal.

Tuition rates at the colleges under investigation in the Justice Department's antitrust inquiry appear on Page A26.

In addition, the ever-expanding and somewhat mysterious inquiry has prompted most of the colleges involved to hire outside lawyers who specialize in antitrust law. Those lawyers, say college officials, are urging institutions to focus on their own interests and to shy away from efforts to develop a joint response to the investigation from higher education as a whole.

"Consultation among colleges serves to keep costs down. Ironically, the Justice Department's action may remove one of our most useful tools for keeping costs down," said Jon W. Fuller, president of the Consortium for the Advancement of Private Higher Education.

College officials said last week that the

Continued on Page A26

Alumni Associations Billed Thousands After Postal Audits

By CHRISTOPHER MYERS

The alumni associations of many colleges and universities have received bills for thousands of dollars in postage due after audits by the United States Postal Inspection Service of materials the associations and other non-profit groups had sent under special, discounted mailing rates.

The target of the audit was what the inspection service calls "cooperative mailings"—materials such as travel brochures and advertisements for credit cards that are put out by non-profit groups in cooperation [illegible] for-profit businesses like travel agencies and financial-services companies.

Mailings Called Illegitimate

Such mailings, according to Postal Service officials, are not a legitimate use of the non-profit discount rate, and the authorities are now trying to collect from groups that they say used the rate improperly.

Officials of the Postal Inspection Service would not say how many institutions were being audited, but several alumni associations have reported receiving requests for information about mailings they have done over the past two or three years, and some have already been billed for back postage.

The University of Notre Dame Alumni

Continued on Page A29

Colleges' Anti-Harassment Policies Bring Controversy Over Free-Speech Issues

By ROBIN WILSON

As more and more colleges move to adopt tough penalties for students who use slurs and epithets to harass others, some university officials are becoming increasingly concerned that discussion of sensitive subjects on campuses is being squelched. Others complain that colleges are using anti-harassment policies to dodge more effective ways of making minority students, homosexuals, and others feel comfortable on their campuses.

Within the past year nearly a dozen institutions have revamped their anti-harassment policies to make them stronger or have adopted new plans. Most other colleges have had statements on harassment on their books for years, but their policies have not been as widely used, as controversial, or as publicized as the latest round of plans. They have pitted those who want to protect students from insults based on their race, religion, sex, or sexual orientation against those who feel that speech—no matter how offensive—should not be restricted.

At least one university's anti-harassment policy has been struck down by a federal judge, who said it violated the First Amendment, and the American Civil Liberties Union has vowed to challenge other plans.

Critics of the policies say the way to fight discrimination is by discussing issues, not by penalizing students. Some profes-

Continued on Page A38

Colombians Ask U.S. Scholars to Help Address Drug Crisis

Colombian scholars have asked their American colleagues to join in "profound and rigorous research" on all aspects of the drug crisis: Page A43.

MARGINALIA

Sign at the entrance to California State University–Dominguez Hills:

NO
DOGS OR ANIMALS
ALLOWED ON CAMPUS

Woof, woof!

■

Notice in Creighton University's *Creighton Today:*

"The Creighton swim team will be practicing Mondays through Fridays from 1-3 p.m. in the Kiewit Center pool. The pool will not be available for lap swimming during this time, however the whirlpool will be available."

Whoosh!

■

The fall schedule for the J. Murrey Atkins Library at the University of North Carolina at Charlotte has this footnote:

"All services are not available during all hours the building is open."

Shhh!

■

An ad for Princeton University Press in the Modern Language Association's *PMLA* notes that the press's *The Genesis of Ezra Pound's Cantos* has "a new forward by James Logenbach."

Charge!

■

The University of Nebraska at Omaha received this letter of recommendation from the teacher-placement office at Iowa State University:

"I am new at Iowa State University. The only thing I know about —— — is that he sits when told, chats pleasantly, and makes no rude gestures or noises."

Zzzz.

■

A memorandum from the executive assistant to the vice-president for academic affairs at California State University, Northridge, says:

". . . Your Department secretary should follow the following steps:

"a. Make sure the part-time faculty member is attached to the Fall 1989 Schedule of Classes with the correct social security number. . . ."

Ouch!

■

The exhibitor pre-registration form for the annual meeting of the National Council for the Social Studies bears this request:

PLEASE TYPE OR PRINT ILLEGIBLY

Scrawl!

■

We've received a mailing from the Department of Communication at (it says in the return address printed on its face) "The University of Michaigan."

"Address correction requested," says a notice below.

Psst! —C.G.

In Brief

Miss. Fraternity Closed After Racist Incident

UNIVERSITY, MISS.—The University of Mississippi has closed a fraternity whose pledges stripped a member and a pledge, painted racial slurs on their bodies, and dumped them on the campus of a nearby, predominantly black college.

The fraternity, the Beta Beta chapter of Beta Theta Pi, will not be allowed to reopen for at least three years, a university spokesman said.

The two students were painted with epithets, bound, and left on the campus of Rust College, where students took them to the college security office.

In addition to disbanding the fraternity, the university's chancellor, R. Gerald Turner, demanded that the fraternity house be vacated within 30 days. He also said disciplinary action would be taken against those involved. The spokesman added that some students would probably be expelled.

Arson Fire Destroys Field at U. of Illinois Stadium

URBANA, ILL.—Vandals set fire to a section of the football field at the University of Illinois at Urbana-Champaign stadium last week, causing damage estimated at nearly $600,000.

The damaged area of artificial turf at Memorial Stadium measures some 40 yards long and 10 yards wide—about one-fourth of the playing surface.

"We're labeling it very clearly as arson," said Paul Dollins, chief of the campus police department.

The fire is the fifth major act of vandalism on the university's grounds in the past year, said Mr. Dollins. No perpetrators have been caught, he said.

A university investigation found that the stadium fire had probably been fueled by charcoal lighter fluid, the chief said.

AstroTurf Industries, which manufactures plastic grass, last week was replacing most of the field's surface. University officials said they expected the field to be ready for the next home game, against Ohio State University on October 7.

Replacing the 73,000 square feet of artificial grass will cost $583,000. The university's insurance will cover all but $10,000 of that amount, a spokesman said.

What They're Reading on College Campuses

		Previous Survey
1.	The Cardinal of the Kremlin, by Tom Clancy	4
2.	Clear and Present Danger, by Tom Clancy	—
3.	Yukon Ho! by Bill Watterson	1
4.	Codependent No More, by Melody Beattie	6
5.	All I Really Need to Know I Learned in Kindergarten, by Robert Fulghum	—
6.	Wildlife Preserves, by Gary Larson	2
7.	Trevayne, by Robert Ludlum	—
8.	The Shell Seekers, by Rosamunde Pilcher	—
9.	Zoya, by Danielle Steel	10
10.	A Brief History of Time, by Stephen W. Hawking	—

The Chronicle's list of best-selling books was compiled from information supplied by stores serving the following campuses: American U., Baylor U., Bucknell U., Carleton College, Carnegie Mellon U., Case Western Reserve U., Central Michigan U., Dartmouth College, Idaho State U., Indiana U., Iowa State U., Kent State U., Lawrence U., Lehigh U., Mankato State U., Montana State U., New York U., Pennsylvania State U., Portland State U., Princeton U., San Francisco State U., Stanford U., Syracuse U., Tarrant County Junior College, Tulane U., U. of California at San Diego, U. of Hawaii, U. of Illinois at Urbana-Champaign, U. of Iowa, U. of Missouri at Columbia, U. of Nebraska at Lincoln, U. of New Orleans, U. of Notre Dame, U. of Pittsburgh, U. of Puget Sound, U. of Washington, U. of Wisconsin at Madison, Vanderbilt U., and Xavier U. (Ohio). Reports covered sales of hardcover and paperback trade books in August.

Furor at Oklahoma State Over Controversial Film

STILLWATER, OKLA.—Controversy is growing at Oklahoma State University over a decision by the Board of Regents last month to postpone a campus screening of *The Last Temptation of Christ*, a movie that has drawn fire because some people consider it blasphemous.

The regents said they would make a final decision on the film after university officials answered legal and policy questions surrounding the issue.

The student activities board had planned to show the movie this month, and an ecumenical campus ministry had intended to follow the screenings with seminars.

Last week Gov. Henry Bellmon, a Republican, urged the regents to allow the showing, saying "censorship is inadvisable, impractical, and inappropriate."

The faculty is expected to vote this week on a resolution urging the regents to allow the showing, and a group of students and faculty members is considering suing the regents over the issue.

Student Athlete Killed in Pole-Vault Mishap

DOWAGIAC, MICH. — An 18-year-old Southwestern Michigan College freshman died last week of head injuries suffered in a pole-vaulting accident.

Matthew Weid, a member of the track team, was practicing vaults when the injury occurred. An assistant coach told local newspapers that the athlete had

AFTER HURRICANE HUGO: COLLEGES CLEAN UP CAMPUSES, STUDENTS AID VICTIMS

COLUMBIA, S.C.

Colleges in two states hit by Hurricane Hugo struggled last week to re-establish communications and clean up their campuses, while other institutions sought to provide relief for Hugo's victims.

DOUG GILMORE, THE (COLUMBIA, S.C.) STATE

More than 400 students at the University of South Carolina at Columbia (*right*) volunteered to sort and pack donations of food, clothing, and other supplies destined for the worst-hit areas of the state, including Charleston.

Susan N. Sanders, a spokeswoman at the College of Charleston, estimated $5-million in damage on the campus, mainly to roofs of buildings. Several trees along a historic avenue of oaks were uprooted and others were damaged.

Like many institutions hit by the storm, the college closed its doors last week and planned to resume classes this week.

In North Carolina, Davidson and Queens Colleges both reported extensive damage from the storm, particularly to trees.

Since the storm, the University of South Carolina at Columbia has provided housing for about 100 students from the College of Charleston. In addition, the university has opened Carolina Coliseum, its basketball arena, for use during the relief effort.

Local churches and others in the community last week brought donations to the coliseum, where volunteers filled five semitrailers and 19 smaller trucks with supplies for hurricane victims.

Meanwhile, the Citadel played its football game last week at the University of South Carolina stadium in Columbia because its own facility had been damaged by the storm. —DENISE K. MAGNER

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Ways & Means

Education Secretary Lauro F. Cavazos could be nearing the end of his tenure, according to Administration sources quoted by *Newsweek* magazine.

The magazine, which labeled Mr. Cavazos "the Do-Nothing Education Secretary" in an article published last week, reports that President Bush has privately urged the Secretary to adopt a higher public profile.

"The 'Education President' has an Education Secretary who is practically invisible," the article says. Even on issues that concern Mr. Cavazos, such as the dropout rate of Hispanic students, the Secretary has been "a wallflower," the article says.

Mr. Cavazos, who has just completed his first year in office, has been criticized for months by education officials and lawmakers, who complain that he has introduced few new ideas or new programs (*The Chronicle*, April 19).

Newsweek reports that the former Texas Tech University president could be offered another government post by early next year.

A spokesman for the Education Department dismissed the report as "a piece of ugly speculation."

■

The controversy about Florida's College Level Academic Skills Test—which all sophomores in the state's public colleges must pass to move on in the system—took an interesting turn early this month when a state legislator suggested that he and some of his colleagues take the test themselves.

Rep. Tom Tobiassen said he thought the members of the House Higher Education Committee should take the test to get "a better idea of reality."

However, Mr. Tobiassen said that his fellow committee members "didn't seem to like the idea," so the suggestion probably would go unheeded.

"A lot of them kind of balked at it," he said.

The test, which is known as CLAST, must be taken by sophomores in the state's public colleges and those in private institutions who receive state financial aid. The students must pass the examination to graduate from community college or to move to upper-level classes in four-year colleges and universities.

Critics of the test say it discourages minority students, who fail the test at disproportionate rates, from continuing their studies.

Supporters say the test is needed to raise academic standards at public colleges.

Mr. Tobiassen said he strongly supported the test, but thought that in its present form it might be "a little too tough."

He added: "I just thought it would be a good idea for us as a committee to take the test, just to see what it's like, to see how much trouble we might have. It might give us some perspective."

Government & Politics

Senate Approves Education Appropriations Bill, but Action on Entire Federal Budget Is Delayed

Failure to meet October 16 deadline for slashing the deficit would trigger across-the-board cuts

WASHINGTON

The Senate last week approved its education appropriations bill, but no one on Capitol Hill offered any hope that the entire federal budget would be in place when the 1990 fiscal year begins this week.

Congress, in fact, prepared a broad, temporary spending bill that would keep federal money flowing through October to any agencies that have not yet had their regular spending bills signed into law.

Lawmakers were also expected to miss an October 16 deadline for slashing the federal deficit. If that happens, mandatory across-the-board cuts in federal programs would be required under the deficit-reduction act, known as the Gramm-Rudman-Hollings law.

Congressional staff members said that cuts in student-aid programs made under the deficit-reduction law would be restored in subsequent legislation, but they said student-loan programs could be temporarily disrupted.

Amid the budget situation and the publicity surrounding the "Education Summit," Sen. Kent Conrad, a North Dakota Democrat, proposed an increase in education funds. It failed by a vote of 23 to 76.

Intent on setting up a classic "guns versus butter" vote, Senator Conrad proposed an amendment to the defense spending that would have shifted about $1-billion from the Defense Department to the Education Department. That would have included about $331-million extra for Pell grants, which go to low-income students, and about $500-million for aid to disadvantaged students at pre-college levels.

Proponents of the shift wanted the money to come from a reduction of about nine per cent in the total number of American troops stationed in Europe and a corresponding reduction in military equipment there. None of it would have been at the expense of military research.

The amendment was coolly received by Democratic leaders, who were trying to sidestep the spending issue to avoid Republican charges that they are free spenders. Other lawmakers argued that the troop reduction would be bad military policy.

4.8-Pct. Increase for Student Aid

College lobbyists, while disappointed by the loss, were glad to have a way of putting all Senators on the record on the issue of shifting money from defense to education.

The appropriations bill passed by the Senate would increase spending for student-aid programs by 4.8 per cent over fiscal 1989. A House bill passed during the summer called for a 3.6-per-cent increase in aid programs. Members of both cham-

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High-School Graduation Requirements Said Not to Affect Achievement-Test Scores

WASHINGTON

Raising high-school graduation requirements has had no significant effect on the performance of students on national achievement tests, the General Accounting Office said last week.

The House Subcommittee on Elementary, Secondary, and Vocational Education asked the accounting office to determine whether increasing high-school graduation requirements would hurt those students who were already weak academically.

After studying national achievement test scores for 61,000 students in four states, G.A.O. analysts concluded that "education reform was neither a disaster nor a boon" for "at-risk" students. Furthermore, the reforms did not significantly help students who were higher achievers.

Rep. Augustus F. Hawkins, a California Democrat and chairman of the House Education and Labor Committee, said: "These reforms only earn a grade of C because there is room for much more improvement. While helpful in some cases, raising graduation requirements does not solve the problems of our schools."

Since 1980, widespread concern about the quality of public education has prompted lawmakers in 45 states to increase high-

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Optimism Returns to Higher Education in Kansas After Nearly a Decade of Belt Tightening

By MARY CRYSTAL CAGE

TOPEKA, KAN.

After operating under a succession of tight budgets for most of the decade, Kansas higher-education officials now exude optimism about the financial and academic future of this state's university system.

In the last two years, public interest in higher education has heightened. Financial support has increased as well, with state lawmakers embracing the "Margin of Excellence," a three-year program to pour an extra $50-million into higher education for the salaries of faculty members, the improvement of existing programs, and the creation of new programs.

"The Margin," as it is called here, has become part of the vernacular in the state, says Stanley Z. Koplik, executive director of the Kansas Board of Regents. "It has become an issue where there is only one right side. You have to support it."

A History of Support for Education

Kansans have a long history of supporting education, even when the state's farm-based economy was suffering. But by 1987, Mr. Koplik says, the effects of nearly a decade of belt tightening were apparent.

For example, says John O. Tollefson, dean of the School of Business at the University of Kansas, the number of faculty members at his school dwindled from 64 to 49 between 1982 and 1987. "We were losing people who had six to ten years' experience to institutions such as the University of Texas at Austin and the University of North Carolina at Chapel Hill, where they would be making 30 to 40 per cent more."

In the spring of 1987, the regents decided that they had to do something to prevent further erosion of their institutions, so they asked their staff to develop a plan, recalls Norman W. Jeter, a lawyer who is chairman of the board.

The basis of the plan dates back to the mid-1970's, when Mr. Koplik was an analyst on education issues with the state's Budget Division. While in that post, he gathered salary and program-cost data from colleges in rural states that were comparable to Kansas institutions. But the numbers, he says, were never used to set policies.

That changed when the Board of Regents adopted the Margin of Excellence

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"We face so much competition from abroad. We face so many changes in technology. We face so much retraining of the work force."

Supreme Court's Term to Include 2 Key Cases Involving Universities

WASHINGTON

Important precedents in discrimination cases involving colleges and universities may be established during the Supreme Court's 1989-90 term, which starts this week.

Although abortion issues are expected to dominate the Court's session, the justices will also decide the outcome of two highly controversial higher-education cases.

One case, which the Court has already agreed to hear, involves the conflict between the principle of confidentiality in tenure reviews and demands to know what went on during the tenure deliberations by persons charging that they had been discriminated against.

The other case, which the Court will decide whether to hear, is an appeal of a lower court's order to establish a single higher-education system in Louisiana as a means of ending racial segregation in the state's

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55 Colleges Say They Are Targets in Tuition-Fixing Investigation

Continued from Page A1

inclusion of the Great Lakes colleges in the inquiry would leave the members of similar organizations vulnerable as well. Shortly after the Justice Department inquiry started, many college officials comforted themselves by saying that they didn't need to worry because they do not compare information in the way that the Overlap Group does.

Similar to Other Groups

The activities of the Great Lakes colleges, however, are similar to those of many other college associations. The 12 institutions sponsor joint academic programs and faculty-development seminars, coordinate a lobbying effort in Washington, and conduct financial and demographic studies of their institutions. Unlike the Overlap Group, Great Lakes colleges do not compare the aid awards offered to individual students.

A Justice Department spokeswoman declined to say why the Great Lakes colleges had been selected or whether other consortia would be examined. She did say it was "possible" that the Justice Department would continue to expand its investigation.

The fear of college consortia was most evident last week at the Great Lakes association. No one in the group's office would describe any of the association's activities, or even give out a list of the group's members. Mr. Fuller, who until this summer was president of the group, and college officials who requested anonymity described its activities in detail.

College officials familiar with Great Lakes said the organization did not engage in price fixing. Mr. Fuller noted that the tuition rates charged by the 12 colleges varied widely, from $8,580 at Hope College to $14,220 at Oberlin College. (By comparison, the range of tuitions at Overlap Group institutions is much more narrow, from $13,380 at Smith College to $14,610 at Wesleyan University.)

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Jon W. Fuller: "Consultation among colleges serves to keep costs down. Ironically, the Justice Department's action may remove one of our most useful tools for keeping costs down."

DOUGLAS GORALSKI, FOR THE CHRONICLE

Chester E. Finn, Jr.: "Colleges are trying awfully hard to pretend that somebody individually is out to get them with this so that they don't have to look at the larger policy issues."

Mr. Fuller also said the Great Lakes colleges competed for students primarily with public institutions in their states, creating a tremendous incentive for the colleges to keep costs down.

Several other consortia of private colleges reported last week that their members had not been contacted by the Justice Department, but said they were worried about that possibility. Among those consortia are the Associated Colleges of the Midwest, which includes 14 private colleges in Colorado, Illinois, Iowa, Minnesota, and Wisconsin; and the Colleges of Mid-America, a consortium of eight colleges in Iowa and South Dakota.

To date, no public institutions have been included in the investigation.

The Justice Department spokeswoman said it would be possible for public institutions to be found in violation of antitrust laws, but added that public institutions generally enjoyed many exemptions to the antitrust laws.

'A Chilling Effect'

Even if more consortia are not targets of the Justice Department, they may be hurt, said Katherine H. Hanson, executive director of the Consortium on Financing Higher Education.

"It has had a chilling effect on very legitimate collegial relationships between institutions," she said.

Ms. Hanson said that, as colleges have tried to improve their budget forecasts in recent years, they have consulted with other institutions to check their projections of such factors as inflation, government support, and enrollment trends.

"These sorts of things might not continue," she said, even though they help colleges make more accurate budget projections so that they can limit tuition increases.

College decisions will also be affected, Ms. Hanson said, by the lawyers most institutions are hiring, "who have the interests of their clients in mind and not the larger interests of higher education."

Indeed, the presence of so many lawyers is already frustrating many Washington lobbyists for colleges and universities, who say it is hampering efforts to create a "united front" for higher education to deal with the issue.

Another problem for colleges in responding to the issue is that, to the surprise of higher-education officials, the investigation makes sense to much of the public.

College officials were stunned by the inquiry. Many said they did not understand the Justice Department's motives, while others attributed the action to a political desire by the Reagan and Bush Administrations to shift blame for colleges' problems away from the federal government.

> **"I've heard of three examples of college people trying to pretend this is not a real issue by getting it depicted as a witch-hunt."**

There has been no public outcry against the investigation, and many newspaper editorials—outside of the Boston-to-Washington corridor—have endorsed the inquiry.

For example, the South Bend (Ind.) *Tribune* said: "Regardless of whether actual wrongdoing is found, the investigation can only benefit students and families, whose ability to pay often does not match the demands of greedy colleges."

The St. Petersburg (Fla.) *Times* urged the Justice Department to "move quickly" on the inquiry, stating: "Ivy League price fixing is particularly cynical because these schools can trade on their prestige to draw the best students." And Gary S. Becker, a University of Chicago economist, wrote a column in *Business Week* calling the

Colleges in Justice Department Inquiry and Their Tuition Rates

Members of the Overlap Group:			
Amherst College	$14,035	Mount Holyoke College	$14,475
Barnard College	13,942	Princeton University	14,390
Bowdoin College	14,060	Smith College	13,380
Brown University	14,920	Trinity College (Conn.)	14,300
Bryn Mawr College	13,500	Tufts University	14,355
Colby College	14,120	University of Pennsylvania	13,950
Columbia University	13,905	Vassar College	13,840
Cornell University*	14,040	Wellesley College	13,805
Dartmouth College	14,445	Wesleyan University	14,610
Harvard University	14,560	Williams College	14,425
Mass. Inst. of Technology	14,500	Yale University	14,000
Middlebury College	n/a		
Members of the Great Lakes Colleges Association:			
Albion College	$ 9,282	Hope College	$ 8,580
Antioch University	11,460	Kalamazoo College	10,686
College of Wooster	11,570	Kenyon College	13,585
Denison University	12,400	Oberlin College	14,220
De Pauw University	10,550	Ohio Wesleyan University	11,128
Earlham College	11,610	Wabash College	8,825
Women's colleges, excluding those in Overlap Group:			
Agnes Scott College	$ 9,780	Mary Baldwin College	$ 8,050
Chatham College	9,100	Randolph-Macon Woman's C.	10,060
Converse College	8,350	Sweet Briar College	10,990
Hollins College	9,900	Wells College	11,120
Other colleges and universities:			
Bates College	n/a	Northwestern University	$12,996
Bennington College	$16,495	Skidmore College	13,475
Connecticut College	14,050	Stanford University	13,569
Goucher College	11,000	University of Chicago	14,025
Hamilton College	14,050	U. of Southern California	13,446
Johns Hopkins University	14,360	Wheaton College (Mass.)	13,320

* Endowed colleges only.

n/a Not available. Bates and Middlebury Colleges report only comprehensive fees, which include, in addition to tuition, charges for room and board.

SOURCE: FIGURES FROM COLLEGE BOARD SURVEY OF 1989-90 TUITION AND REQUIRED FEES FOR FRESHMEN

3 Harvard U. Officials Quit Company That Sells Admissions Data to Colleges

By SUSAN DODGE

Three administrators at Harvard University have dissociated themselves from a company that sells admissions and financial-aid information to colleges. They took the action to avoid "the semblance of inappropriate activities," according to a statement released by A. Michael Spence, dean of the faculty of arts and sciences at Harvard.

The company, called Student Aid Services, has about 80 public and private universities as its clients. It compiles information on entering students, reporting whether they received financial aid and how much, and whether they applied to more than one institution. It also tells institutions which students made deposits at more than one college. The company charges universities as much as $550 a year.

The colleges that pay for the information use it in marketing their institution to students and in budgeting for financial-aid awards.

One Official to Continue

The three Harvard officials owned the company, along with Walter H. Moulton, director of student aid at Bowdoin College. Mr. Moulton said in a statement last week that he planned to continue providing the service for now, but was unsure whether he would resign later. The Harvard administrators who were involved are William R. Fitzsimmons, dean of admissions and financial aids; Warren C. Reed, assistant dean of admissions; and James S. Miller, director of financial aids.

Critics of the company said the administrators were inappropriately trading on their roles as Harvard and Bowdoin employees. Others, however, said they had done nothing improper.

The controversy over Student Aid Services came not long after the announcement of a Justice Department investigation into how colleges and universities trade information in the setting of tuition rates and financial-aid awards to students. The investigation, which is exploring whether colleges have violated federal antitrust laws in exchanging such information, includes the 23 private colleges and universities that are members of the Overlap Group.

The Overlap Group is made up of financial-aid administrators—including those from the Ivy League—who meet to discuss financial-aid requests from their overlapping pools of applicants.

The institutions in the Overlap Group are clients of Student Aid Services, which was established in 1983. Some observers said the link between Student Aid Services and the activities of the group did not reflect well on the Harvard and Bowdoin administrators.

Said Arthur M. Hauptman, an independent education consultant on higher-education issues: "It certainly does not give a good appearance to have financial-aid administrators apparently profiting from the controversial activities of the Overlap Group."

The Harvard administrators last week refused to comment on the controversy, but Mr. Spence, the dean at Harvard, defended their actions. He said that some of Student Aid Service's work was done free of charge, and that the compensation the administrators received from the business was modest. The administrators did not release information about how much they were paid.

Mr. Spence said in a statement: "In the future, Harvard administrators will not work under the auspices of an outside vendor to provide admissions or financial-aid services of any sort."

Senate Approves Education Appropriations Bill

Continued from Page A20

bers meeting in conference were expected to compromise on a rate of increase between the two, insuring that spending will not keep up with the 5-per-cent annual rate of inflation.

The bill, which was approved on the Senate floor by a vote of 81 to 19, with no major changes to the version passed by the Appropriations Committee, provides more generous increases for the National Institutes of Health and for AIDS research (*The Chronicle*, Sept. 20).

Approval of the Senate bill last week followed agreement by Democrats and Republicans on a plan to add $900-million to President Bush's $7.9-billion war on drugs. The anti-drug package includes a provision prohibiting federal aid to any college or university that does not have programs to fight drug and alcohol abuse.

To help pay for the package, most federal programs would be cut by a tiny fraction. The impact on individual education and health programs had not been determined last week. However, after the extra money is added for programs related to drug-abuse education, prevention, and treatment, the overall spending bill for education and health programs would be even larger than before the cuts.

At the same time, another bill designed to cut the deficit, known as a "reconciliation" bill, has been bogged down in political disputes. The most prominent disagreements concern whether the government should cut the tax rate on capital gains and whether it should expand tax breaks for people who set up Individual Retirement Accounts.

Dispute Over Loan Program

Whether first-year students at colleges or trade schools should be excluded from the Supplemental Loans for Students program was the source of another dispute. College lobbyists have favored such a ban as a way of curbing defaults in the program, but trade-school officials charge that it would limit opportunities for the poor. The House included the ban in its bill, but the Senate did not.

If debate on the various disputes continues beyond October 16, and the mandatory cuts are made, all money will later be restored, staff members on Capitol Hill say.

They note, however, that student-loan programs would be disrupted the most. Under the deficit-reduction law, the loan-origination fee paid by students would be increased temporarily to 5.5 per cent of the principal, from the usual 5 per cent. The allowance paid by the government to banks would be cut, creating the possibility that bankers would make fewer loans while the special conditions are in effect.

The temporary measure prepared in Congress last week allowed for spending at fiscal 1989 levels until late this month. It was expected to be signed into law by the end of the week so that the federal government would not run out of money at midnight on Saturday.

The Senate version of the education-spending bill includes an amendment, adopted without debate by the Appropriations Committee at the request of the two Kansas Senators, Robert J. Dole and Nancy L. Kassebaum, to spend $5.2-million for building a bioscience center at the Lawrence campus of the University of Kansas. The money would be awarded through the Department of Education.

—COLLEEN CORDES,
THOMAS J. DeLOUGHRY,
AND DAVID L. WHEELER

Education and Research Money Approved by the House and Senate

In the Department of Education

	Fiscal 1989 Actual spending	Fiscal 1990 President's request	Fiscal 1990 Approved by House	Fiscal 1990 Approved by Senate
Student assistance				
Pell Grants	$4,483,915,000	$4,740,000,000	$4,740,000,000	$4,470,000,000
Supplemental Grants	437,972,000	452,863,000	452,863,000	490,000,000
College Work Study	610,097,000	610,097,000	610,097,000	615,000,000
Income-contingent loans	4,940,000	20,000,000	10,000,000	10,000,000
State Student Incentive Grants	71,889,000	0	50,000,000	72,000,000
Perkins Loans	205,507,000	22,000,000	159,000,000	169,000,000
Stafford Student Loans*	4,066,852,000	3,192,234,000	3,651,000,000	3,826,314,000
Paul Douglas Teacher Scholarships	15,235,000	0	14,235,000	16,000,000
Graduate support				
Patricia Roberts Harris Graduate Fellowships	15,711,000	16,245,000	16,245,000	16,245,000
Jacob K. Javits Fellowships	7,904,000	5,770,000	6,770,000	8,000,000
Patricia Roberts Harris Public Service Fellowships	3,320,000	0	3,320,000	3,320,000
Minority Participation Graduate Fellowships	3,476,000	594,000	3,594,000	3,594,000
Graduate Assistance in Areas of National Need	12,844,000	11,945,000	17,000,000	13,000,000
Institutional assistance				
Cooperative education	13,622,000	0	13,622,000	13,622,000
Developing institutions				
Aid for historically black colleges	73,554,000	76,055,000	85,000,000	85,000,000
Institutional support	77,459,000	80,093,000	83,000,000	85,000,000
Endowment Challenge Grants	12,696,000	13,128,000	23,128,000	13,128,000
Facilities				
College-housing and academic-facilities loans and construction insurance	31,315,000	5,129,000	35,129,000	5,129,000
Interest-subsidy grants	22,744,000	22,744,000	22,744,000	22,744,000
International education	31,058,000	30,317,000	40,317,000	38,817,000
Law School Clinical Experience	3,952,000	0	5,000,000	3,952,000
Veterans Education Outreach	2,838,000	0	2,838,000	2,838,000
Bilingual education				
Bilingual vocational training	3,771,000	0	3,900,000	0
Training grants	30,413,000	30,413,000	32,413,000	31,413,000

	Fiscal 1989 Actual spending	Fiscal 1990 President's request	Fiscal 1990 Approved by House	Fiscal 1990 Approved by Senate
Library resources				
Research libraries	$5,675,000	$5,675,000	$5,675,000	$5,800,000
Training and demonstration	709,000	709,000	709,000	1,000,000
College library technology grants	3,651,000	3,651,000	3,651,000	3,812,000
Aid to disadvantaged				
College-aid migrant programs	1,482,000	1,482,000	1,482,000	2,000,000
Legal Training for the Disadvantaged	1,892,000	1,956,000	2,500,000	2,000,000
Minority Institutions Science Improvement	5,307,000	5,487,000	5,487,000	5,487,000
Programs for disadvantaged students	219,257,000	228,168,000	248,168,000	240,000,000
Education research and statistics				
Education research	47,079,000	50,960,000	57,010,000	55,100,000
Education statistics	31,122,000	37,370,000	38,320,000	40,320,000
Education for the handicapped				
National Institute on Disability and Rehabilitation Research	53,525,000	52,883,000	52,883,000	55,000,000
Research and development	17,026,000	17,026,000	17,026,000	21,026,000
Personnel development	67,095,000	67,095,000	67,095,000	70,000,000
Rehabilitation training	30,500,000	30,134,000	30,134,000	31,500,000
Postsecondary programs	5,770,000	5,770,000	5,770,000	8,770,000
Miscellaneous				
Adult education	162,210,000	172,665,000	208,796,000	184,000,000
Fund for the Improvement of Postsecondary Education	11,856,000	11,856,000	11,856,000	11,856,000
Office for Civil Rights	41,635,000	45,178,000	45,178,000	45,178,000
Teacher training	151,434,000	155,347,000	113,346,000	172,850,000
Vocational education grants	831,566,000	0	860,000,000	867,870,000
Women's educational equity	2,949,000	0	2,949,000	1,300,000
School, College, and University Partnerships	2,760,000	2,854,000	2,854,000	3,000,000

In the Department of Health and Human Services

	Fiscal 1989 Actual spending	Fiscal 1990 President's request	Fiscal 1990 Approved by House	Fiscal 1990 Approved by Senate
Scientific research				
National Institutes of Health				
Cancer Institute	$1,570,943,000	$1,646,073,000	$1,652,666,000	$1,668,473,000
Heart, Lung, and Blood Institute	1,045,732,000	1,082,497,000	1,090,930,000	1,091,597,000
Institute of Dental Research	130,834,000	135,796,000	138,053,000	137,096,000
Institute of Diabetes and Digestive and Kidney Diseases	559,648,000	582,629,000	590,276,000	593,497,000
Institute of Neurological and Communicative Disorders and Stroke and Institute on Deafness and Other Communication Disorders	567,179,000	593,404,000	595,155,000	620,104,000
Institute of Allergy and Infectious Diseases	742,277,000	842,712,000	845,523,000	847,112,000
Institute of General Medical Sciences	654,664,000	682,249,000	692,639,000	752,939,000
Institute of Child Health and Human Development	425,532,000	444,193,000	448,493,000	450,593,000
Eye Institute	231,292,000	239,474,000	240,636,000	241,774,000
Institute of Environmental Health Sciences	223,695,000	230,848,000	232,479,000	234,048,000

	Fiscal 1989 Actual spending	Fiscal 1990 President's request	Fiscal 1990 Approved by House	Fiscal 1990 Approved by Senate
National Institutes of Health, continued				
Institute of Arthritis and Musculoskeletal and Skin Diseases	$160,015,000	$168,588,000	$171,673,000	$171,688,000
Institute on Aging	222,845,000	230,490,000	241,528,000	245,490,000
Research Resources	358,332,000	307,956,000	356,128,000	362,253,000
Center for Nursing Research	29,132,000	30,969,000	32,969,000	34,969,000
International Center	14,002,000	15,532,000	15,579,000	15,532,000
Library of Medicine	74,413,000	78,729,000	83,311,000	80,729,000
Total N.I.H.	7,144,819,000	7,529,397,000	7,678,625,000	7,713,064,000
Health research and training				
Alcohol, Drug Abuse, and Mental Health Administration				
Mental health research and research training	354,464,000	389,110,000	389,110,000	361,694,000
Centers for Disease Control				
Occupational safety and health research and training	70,355,000	70,355,000	73,900,000	87,695,000

* Formerly called Guaranteed Student Loans

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News Summary

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Physicists now believe the material universe is composed of three fundamental types of matter: Page A4.

Room-temperature fusion has received a reprieve from a panel of scientists who say new experiments warrant further research: Page A4.

Boston U.'s president, in a new book, offers solutions to the country's problems: Page A13.

Educating teachers on California State U. campuses is everyone's job, administrators there say: Page A13.

Federal aid programs for colleges face a two-year review as Congress prepares to reauthorize the Higher Education Act of 1965: Page A19.

The use of animals in biomedical research is attracting more attention in Congress: Page A19.

Historically black colleges have won millions of dollars from corporations and foundations, but wooing their own alumni has proved more difficult: Page A31.

A national prepaid-tuition program has been started by a company representing 14 colleges: Page A34.

The men's basketball program at Tulane U. was formally reinstated with a midnight scrimmage and pledges to avoid scandals: Page A35.

For students in China, foreboding has replaced the optimism of last spring's demonstrations: Page A39.

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Vietnam Seeks to End Its Academic Isolation From Western World

By **JONATHAN M. MOSES**

HO CHI MINH CITY, VIETNAM

Vietnam is eager to renew academic ties with the West.

Cut off from the United States since 1975, when Americans evacuated this city—then known as Saigon—in the face of advancing North Vietnamese troops, educators here say they are now looking to develop Western contacts as part of a year-old campaign to jump-start their country's moribund economy.

"We will go anywhere—France, the U.S., Japan"—to make those connections, said Tran Tiung Hau, chairman of the economics department at Ho Chi Minh City University, in a recent interview.

Scholars here noted that a lack of funds made such contacts impossible without foreign sponsorship. Efforts to create academic links outside the Socialist bloc also are being hampered by a rigid academic structure in Vietnam.

Nevertheless, university officials here say they are hopeful about enlarging Vietnam's human-resource pool through education, thus laying the groundwork for the economy to "take off," as it has in other Southeast Asian nations.

New Interest in Studying English

Perhaps the most significant aspect of Vietnam's new interest in academic reforms is a great increase in the number of students who are studying English. No firm statistics on the trend are available, but interest in English seems to be pervasive despite a strong Soviet presence.

"English is the hot subject," said Ngo Phuong Thien, vice-chairman of the English department at Ho Chi Minh City University, who studied English in Australia

Continued on Page A40

State Governments to Spend $39.3-Billion on Colleges and Universities in 1989-90

Farm-belt campuses fare well; Northeast prepares for austerity

By **SCOTT JASCHIK**

State governments will spend $39.3-billion on higher education this year, an increase of 14.3 per cent over what they spent two years ago.

In general, farm-belt states are providing generous increases for higher education this year, while states in the Northeast are more frugal than they were two years ago, according to a study compiled by the Center for Higher Education at Illinois State University. In the study, state appropriations are compared with figures from two years earlier, rather than with those from the previous year, to limit the influence of short-term fluctuations.

The overall increase is nearly two percentage points above the two-year rise last year.

The data are known widely as "the Chambers numbers," after M. M. Chambers, who died in 1985. Mr. Chambers, a professor at Illinois State, started collecting the information in 1958. Since then, the annual study has become the authoritative compendium of state support for colleges and universities.

Economies Rebound in Oil States

Despite the healthy outlook for higher education in the state budgets, some colleges and universities will get much more than others.

Many of the states that rely on agriculture or the oil industry, which suffered severe declines in the mid-1980's, are now enjoying economic rebounds. And colleges in those states will benefit this year.

Compared with two years ago, state support for higher education is up 27 per cent in Nebraska, 26 per cent in Illinois, 23 per cent in Kansas, 21 per cent in North Dakota, and 18 per cent in Texas. In Illinois and

Continued on Page A20

Budget Cuts, Scandals Leave Mass. Colleges Facing Severe Crisis

By **GOLDIE BLUMENSTYK**

BOSTON

Budget cuts, financial imbroglios, patronage appointments, turf wars, and a sex scandal are ripping the fabric of public higher education in Massachusetts.

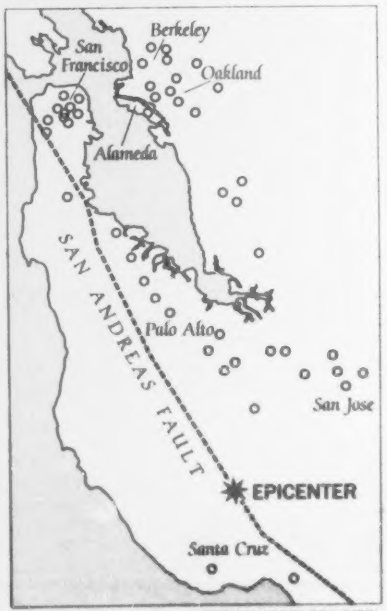
For nearly three years the setbacks have come one after another. Now, facing continued state deficits, Democratic Gov. Michael S. Dukakis is demanding more layoffs and painful cuts in college budgets. College leaders, drained of patience, have threatened to defy him. And many here question whether Massachusetts has the political will to keep its public-college system from being reduced to tatters.

"I think what we're approaching here in Massachusetts is a moment of truth," says Stephen K. Wollmer, director of communications for the Massachusetts Teachers Association, which represents about 6,000 college faculty members.

While college supporters look for help from state leaders, a new political tenor in the state is complicating their problems. Voters are fed up by reports of widespread

Continued on Page A24

California Colleges Are Spared Serious Earthquake Damage



CHRONICLE MAP BY SUE LALUMIA

Most San Francisco Bay area colleges, shown on map above, closed after last week's devastating earthquake, but few suffered serious damage: Page A3.

Political Paralysis Over Abortion Leads U.S. to Evade Key Issues in Biomedical Ethics, Scientists Charge

By **DAVID L. WHEELER**

WASHINGTON

The federal government is sidestepping a wide range of pressing questions about biomedical ethics because of political paralysis over abortion, many scientists and ethicists say.

The paralysis, in both Congress and the Bush Administration, particularly hurts scientists seeking federal guidance and financial support for research in two areas—transplanting fetal tissue and helping infertile couples conceive.

Campus officials who must supervise biomedical research say the government's inability to come to grips with such research leaves the nation without credible leadership on a host of troubling issues.

"We have been going for many years without a standing group to provide national oversight or guidance where substantial or novel ethical issues are present," says Robert J. Levine, president-elect of the American Society of Law and Medicine and head of a Yale University committee that reviews research proposals. "We are taking our chances with judgments made at a local level."

Three developments have been particularly troubling to some scientists and ethicists:

- The Congressional Biomedical Ethics Advisory Committee has stopped work after members of Congress, in a deadlock caused by conflicts over abortion, failed to agree on who should serve as chairman of the Congressional panel that was to oversee the committee's work. The advisory committee and its staff were to have provided advice to Congress on such questions as what federal guidelines should be

Continued on Page A25

MARGINALIA

"When a kitchen fire interrupted supper one evening at Drury College," a reader writes, "the heavy smoke damage made many students wonder what breakfast would bring.

"Come sunrise, the menu board listed 'Cajun-style breakfast—black peppered eggs, smoked sausage, grilled biscuits, and toast, raw or burnt.' Cold cereal was the breakfast of choice that day."

■

Headline in the University of Connecticut *Daily Campus:*

NEARLY HALF OF STUDENTS
EAT FIRST WEEKEND MEALS

"Mom's probably been starving them to pay for college," a reader suggests.

■

Music note in the Greenville (S.C.) *News:*

"Gayle Chesebro, French horn, faulty recital, 8 p.m., Turner Auditorium, North Greenville College. . . ."

We've *all* had nights like that.

■

From the Hollins College *Faculty & Staff Newsletter:*

"We received word . . . that our proposed restructed teacher preparation plan has been fully approved by the Virginia Department of Education."

"If only it had been structed properly in the first place," a reader comments.

■

This-is-getting-serious note:

"I save Marginalia items," writes a reader at the University of Tennessee at Chattanooga, "and classify them on index cards according to type of error (misplaced modifier, subject-verb agreement, etc.). When I am teaching that particular topic in class, I hand each student an index card with a real-life example of that error and have them solve the error and put the corrected version on the blackboard. This gives students an opportunity to work with real-life discourse instead of textbook exercises, and since the errors are often funny, they enjoy it, although sometimes they don't understand the context."

We *wondered* why we'd been getting those black looks from students.

■

A notice from the personnel-services division at the Medical College of Georgia promises that people who complete a program called "Effective Writing for Secretaries" will be able to "analize the purpose and audience of any type of business communication" and "revise the pharsing of any business communication to assure maximum readability."

Uh-huh. —C.G.

In Brief

Football Festivities Turn to Riots in Michigan

EAST LANSING, MICH.

Football festivities turned into off-campus riots at two Michigan universities, prompting campus officials to step up security and call on students to limit their drinking.

In a half-page advertisement in the Michigan State University student newspaper, President John DiBiaggio warned that further incidents would contribute to the university's reputation as a "party school," which he said was unfounded.

After Michigan State lost to the University of Michigan, a crowd of about 3,000 rioted near an off-campus apartment complex in East Lansing. East Lansing Police Captain Richard Murray said 20 minor injuries and $10,000 worth of damage had occurred near the complex, where revelers tossed sofas, refrigerators, and other furniture into two bonfires.

Captain Murray said no arrests had been made because the police were outnumbered. "Any time the police got near, they got pelted with rocks and bottles," he said.

Brawls and 10 Arrests

Two students and eight others were arrested last week when homecoming-game parties at Western Michigan University led to vandalism, brawls, and fires.

Damage estimates in the off-campus residential area were as high as $14,000, a university official said. Western Michigan's president, Diether Haenicke, offered a $1,000 reward for information leading to the arrest and conviction of anyone responsible for the damage.

Threatened with a search warrant, editors of Western Michigan's student newspaper turned over photographs of the mêlée to university administrators, who in turn gave them to the Kalamazoo police. The paper's editor in chief, Kyle Rickard, said it had an "ethical responsibility" to help apprehend those who instigated the violence, which he said was not typical of the campus. He predicted that the photographs would lead to further arrests. —SCOTT HELLER

U. of Mass. Professionals Vote to Join Union

BOSTON—By a margin of more than two to one, professional employees on the three campuses of the University of Massachusetts have voted to join Local 509 of the Service Employees International Union. Three previous attempts by other collective-bargaining agents to organize the employees—about 1,200 non-faculty professionals at the university's Amherst, Boston, and Worcester campuses—had failed.

In the election, 686 employees voted for representation by the S.E.I.U., and 83 voted for an independent, in-house group. An additional 200 opposed any union representation.

The state's budget crunch was "certainly" a factor in the vote for unionization, said Lois V. Balfour, campaign coordinator for Local 509. The Massachusetts higher-education system is facing $25-million in budget cuts this year. (See story on Page 1.)

The professional workers were the last group at the university without collective-bargaining representation.

U. of Wisconsin Student Dies in Fall From Dorm

MADISON, WIS.—Police at the University of Wisconsin at Madison last week were investigating the death of an 18-year-old student who fell from his seventh-floor dormitory room.

Joseph Sicherman, a freshman, died in the incident at Sellery Hall.

The police plan to take their findings to the District Attorney's office after their investigation is completed this week, said Lieut. Gary Moore, investigating officer. He would not comment further about details of the case, except that another student might have been indirectly involved.

Police are "relatively certain" the student was alone at the time of the fall, Lieutenant Moore said. Mr. Sicherman reportedly had left a group of three friends shortly before the 1 a.m. incident, saying he wanted to be alone, the lieutenant said.

Alcohol was probably not involved, Lieutenant Moore said, but he would not comment on whether drugs might have been.

An autopsy report is expected to be completed in two to three weeks.

Film That Caused Furor Shown at Oklahoma State

STILLWATER, OKLA.—Oklahoma State University's Board of Regents approved the showing last week of the controversial movie *The Last Temptation of Christ*, prompting the board's chief executive officer to resign.

In a 6-to-2 vote with one abstention, the board rescinded an earlier decision to prevent the campus showing of the movie, which has been criticized for blaspheming Jesus.

H. Jerrell Chesney, chief executive officer for 15 years, said he had resigned "to make a strong personal statement of repudiation to the film." Mr. Chesney, a member of the Church of Jesus Christ of Latter-day Saints, called the movie "offensive."

However, Mr. Chesney supported the board's decision based on its "objective examination" of ethical and legal issues concerning the film. The movie was shown as originally scheduled last week.

The regents will request that a lawsuit charging First Amendment violations, brought against them earlier this month by students, faculty members, and a campus minister, be declared moot.

New Archives Building to Rise at U. of Maryland

COLLEGE PARK, MD.—The Archivist of the United States helped break ground last week for a new repository at the University of Maryland that will house more than half of the collection of the National Archives and Records Administration.

The $205-million building will bring together more than 500,000 cubic feet of records now stored in seven locations outside the National Archives in Washington. Photographs, film, and oversized documents are among items to be housed in the six-story building when it opens in 1993.

The main Archives will continue to house 800,000 cubic feet of other documents, from papers related to genealogy and American Indians to Congressional and court records—as well as the Declaration of Independence and the U.S. Constitution.

The new building is expected to serve more than 50,000 scholars a year, including University of Maryland students and professors who will have special access to the space and its equipment.

Pa. Fraternity Punished for Jewish-Theme Party

UNIVERSITY PARK, PA.—A fraternity at Pennsylvania State University was placed on "social probation" after holding a Rosh Hashanah theme party that many thought was anti-Semitic.

The party was thrown by Phi Gamma Delta on the first night of the Jewish New Year. Members of the fraternity decorated the

2-Year Colleges Urged to Set Strategy for Inner-City Problems

WASHINGTON

Urban community colleges must develop a "national strategy" to address the problems of the inner cities, says a new report released here by the American Association of Community and Junior Colleges.

The report, "Who Cares About the Inner City? The Community College Response to Urban America," says the colleges have become "anchor points" in their communities for non-traditional students, community-service programs, and community-based organizations and activities.

As a result, it says, the colleges now serve a clientele—including the homeless, dropouts, immigrants, latch-key children, and the unemployed—that embodies all the problems of the inner city.

'We Are Not Winning'

Because there is "no national consensus" about how to handle these problems, the report says, each community college deals with them in its own fashion. Some programs are successful, says the report, but others are not.

"We are not winning the battle in the inner city," Ronald J. Temple, president of Wayne County Community College said at a news conference called to release the report.

"In my view, things are deteriorating. In Michigan, for example, a black man has a greater chance of going to jail today than to college."

Mr. Temple, chairman of the association's Commission on Urban Community Colleges, which sponsored the report, added: "We need a comprehensive approach to address the conditions of the inner city. We are trying to address them individually, but we need a national strategy."

The report is based on a study undertaken last year by the community-college association to call attention to efforts by urban institutions to confront economic and social issues. The study included colleges whose presidents are members of the urban commission.

To conduct the study, Maurice D. Weidenthal, retired vice-president of public affairs at Cuyahoga Community College and author of the report, visited campuses in 10 of the country's largest cities.

The report includes examples of successful partnerships between the urban colleges and the communities, business and industry, and schools and universities.

To address inner-city issues, the report recommends that national policymakers pass an urban extension act that would enable federal and city governments and the community colleges to form partnerships to work on urban problems.

The 28-page report is available from A.A.C.J.C. Publications, 80 South Early Street, Alexandria, Va. 22304; (703) 823-6966. The price is $9.25 for association members and $11.25 for others, plus $3.50 for postage.

—BEVERLY T. WATKINS

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FACT FILE: State Appropriations for Higher Education, 1989-90

The following figures were compiled by Edward R. Hines and Gwen B. Pruyne of Illinois State University. The table omits footnotes qualifying some of the figures. The full report will be available in February from the National Association of State Universities and Land-Grant Colleges, One Dupont Circle, Washington 20036. The report is free of charge to association members and $3.50 for others.

	1989-90 appropriations (in thousands)	2-year change
ALABAMA		
U of Alabama	$ 270,444	+15%
Auburn U System	146,647	+18%
U of South Alabama	55,558	+15%
Troy State U System	21,514	+15%
Jacksonville State U	21,570	+12%
Alabama A&M U	20,311	+14%
Alabama State U	19,343	+12%
U of North Alabama	15,862	+10%
U of Montevallo	11,393	+10%
Livingston U	6,816	+10%
Athens State C	4,006	+18%
Community colleges	89,858	+22%
Voc-tech schools	66,204	+ 4%
Aid to private colleges	6,063	+ 6%
Student aid	4,459	+ 4%
Other	16,593	n/c
Total	**$ 776,641**	**+10%**
ALASKA		
U of Alaska		
Fairbanks	$ 79,444	+ 8%
Anchorage	46,494	+11%
Southeast	10,900	+17%
Vocational-technical ed	9,234	+ 6%
Student aid	10,000	36%
Other	19,951	n/c
Total	**$ 176,023**	**+ 6%**
ARIZONA		
U of Arizona	$ 232,478	+10%
Arizona St U	190,232	+20%
Northern Arizona U	63,139	+14%
Community colleges	78,549	+15%
Other	5,584	n/c
Total	**$ 569,982**	**+14%**
ARKANSAS		
U of Arkansas System	$ 184,023	+ 7%
Arkansas St U	29,529	+ 4%
U of Central Arkansas	21,219	+ 1%
Southern Arkansas U	12,694	+ 5%
Arkansas Tech U	11,742	+ 7%
Henderson St U	9,402	+ 4%
Community colleges	22,618	+ 6%
Student aid	6,605	+ 3%
Other	3,368	n/c
Total	**$ 301,200**	**+ 6%**
CALIFORNIA		
U of California System	$2,102,816	+10%
California St U	1,987,492	n/c
Community colleges	1,480,033	+13%
California Maritime Academy	6,642	+ 6%
Student aid	160,370	+28%
Other	3,384	n/c
Total	**$5,740,737**	**+13%**
COLORADO		
U of Colorado System	$183,733	+15%
St Board of Agriculture (for Colorado St U, U of Southern Colorado, and Ft Lewis C)	100,213	+15%
U of Northern Colorado	28,617	+14%
Colorado Sch of Mines	10,672	+ 4%
State colleges (Mesa, Metropolitan, Western, and Adams St)	48,297	+14%
Community colleges	70,937	+18%
Vocational education	26,911	+10%
Student aid	28,586	+22%
Other	6,791	n/c
Total	**$ 504,757**	**+14%**
CONNECTICUT		
U of Connecticut	$ 193,662	+ 7%
St U System		
Southern Connecticut	30,607	+11%
Central Connecticut	31,314	+12%
Western Connecticut	15,755	+39%
Eastern Connecticut	13,283	4%
Central office	2,912	+26%
Central Naugautuck Valley Region Higher Ed Ctr	3,376	+17%
Regional community colleges	61,860	+15%
State technical colleges	17,996	+ 1%
Other	93,031	n/c
Total	**$ 463,796**	**+12%**
DELAWARE		
U of Delaware	$ 67,515	+11%
Delaware St C	17,461	+17%
Tech & community colleges	26,756	+20%
Other	3,809	n/c
Total	**$ 115,541**	**+14%**
FLORIDA		
U of Florida	$ 361,244	+15%
U of South Florida	172,197	+15%
Florida St U	138,602	+15%
Florida International U	72,788	+15%
U of Central Florida	65,419	+21%
Florida Atlantic U	52,199	+12%
Florida A&M U	43,240	+13%
U of West Florida	31,875	+17%
U of North Florida	26,444	+21%
Student aid	39,793	+57%
Aid to private colleges	38,344	+11%
Community colleges	494,028	+17%
Other	31,538	n/c
Total	**$1,567,711**	**+15%**
GEORGIA		
U of Georgia	$ 258,618	+15%
Medical C of Georgia	100,683	+ 5%
Georgia St U	90,095	+12%
Georgia Inst of Technology	95,142	+22%
Georgia Southern C	31,126	+39%
Valdosta St C	19,961	+24%
West Georgia C	19,447	+14%
Kennesaw C	18,635	+30%
Columbus C	14,123	+ 9%
Southern C of Technology	13,152	+13%
Georgia C	13,398	+28%
Fort Valley St C	11,649	+ 9%
GEORGIA—Continued		
Savannah St C	$ 10,889	+ 7%
Albany St C	10,895	+ 8%
Augusta C	11,347	+19%
Armstrong St C	9,484	+12%
Georgia Southwestern C	8,657	+ 7%
Clayton St C	7,863	+23%
North Georgia C	7,867	+17%
Community colleges	73,967	+24%
Student aid	1,640	+ 9%
Other	51,031	n/c
Total	**$ 884,669**	**+16%**
HAWAII		
U of Hawaii System	$ 277,439	+21%
Other	37,017	n/c
Less tuition and other revenue	22,000	+ 6%
Total	**$ 292,456**	**+20%**
IDAHO		
U of Idaho	$ 61,747	+11%
Boise St U	33,447	+16%
Idaho St U	28,841	+13%
Lewis-Clark St C	5,327	+15%
Community colleges	6,988	+14%
Vocational education	16,875	+14%
Student aid	1,396	+286%
Other	3,626	n/c
Total	**$ 158,247**	**+14%**
ILLINOIS		
U of Illinois	$ 585,965	+25%
Southern Illinois U	185,370	+17%
Northern Illinois U	90,185	+20%
Illinois St U	67,943	+24%
Western Illinois U	46,380	+17%
Eastern Illinois U	38,054	+28%
Northeastern Illinois U	32,902	+28%
Chicago St U	27,318	+28%
Governors St U	19,344	+27%
Sangamon St U	17,549	+21%
Community colleges	237,114	+23%
Student aid	200,269	+41%
Other	126,929	n/c
Total	**$1,675,322**	**+26%**
INDIANA		
Indiana U	$ 313,258	+15%
Purdue U	219,521	+15%
Ball St U	90,669	+17%
Indiana St U	60,216	+12%
U of Southern Indiana	11,999	+35%
Vincennes U	20,031	+21%
Indiana Voc-Tech C	50,730	+18%
Student aid	42,868	+22%
Other	4,729	n/c
Total	**$ 814,021**	**+10%**
IOWA		
U of Iowa	$ 169,277	+11%
Iowa St U	157,024	+12%
U of Northern Iowa	49,597	+12%
Community colleges	88,458	+17%
Student aid	36,886	+25%
Other	1,051	n/c
Total	**$ 502,293**	**+14%**
KANSAS		
U of Kansas	$ 167,292	+20%
Kansas St U	108,978	+23%
KANSAS—Continued		
Wichita St U	$ 47,316	+21%
Pittsburg St U	21,458	+26%
Emporia St U	20,225	+22%
Fort Hays St U	20,525	+26%
Kansas Tech Inst	3,744	+15%
Washburn U of Topeka	5,949	+34%
Community colleges	40,778	+35%
Student aid	6,684	+35%
Other	1,839	n/c
Total	**$ 444,788**	**+23%**
KENTUCKY		
U of Kentucky	$ 236,013	+13%
U of Louisville	110,771	+10%
Eastern Kentucky U	44,495	+ 8%
Western Kentucky U	43,934	+ 9%
Murray St U	32,784	+ 7%
Morehead St U	26,808	+ 8%
Northern Kentucky U	22,572	+ 8%
Kentucky St U	14,627	+ 7%
Student aid	12,802	+45%
Other	5,376	n/c
Total	**$ 550,182**	**+11%**
LOUISIANA		
Louisiana St U System	$ 302,692	+ 8%
Southern U System	42,603	− 2%
U of Southwestern La	35,996	+14%
Louisiana Tech U	24,476	+ 6%
Northeast Louisiana U	23,311	+ 5%
Grambling St U	16,303	+ 1%
Southeastern La U	16,683	+ 4%
McNeese St U	16,229	+ 3%
Nicholls St U	15,212	+ 6%
Northwestern St U of La	14,638	− 1%
Delgado CC	10,769	− 3%
Louisiana U Marine Consortium	1,405	− 9%
Other	2,595	n/c
Total	**$ 522,912**	**+ 6%**
MAINE		
U of Maine System	$ 142,803	+26%
Maine Maritime Academy	6,557	+43%
Vocational education	24,043	+24%
Student aid	3,465	n/c
Total	**$ 176,868**	**+25%**
MARYLAND		
U of Maryland		
College Park	$ 224,453	+36%
Baltimore City	121,151	+32%
Baltimore County	46,337	+35%
Eastern Shore	14,978	+34%
U College	3,829	n/c
Towson St U	50,020	+41%
Frostburg St U	19,433	+25%
Salisbury St C	18,978	+45%
U of Baltimore	18,315	+44%
Bowie St C	14,401	+25%
Coppin St C	13,619	+32%
University C	3,829	n/c
Administration	63,201	n/c
Morgan St U	32,412	+34%
St Mary's C of Maryland	8,918	+31%
Community colleges	118,936	+20%
Aid to private colleges	24,150	+35%
Student aid	20,086	+81%

Continued on Following Page

How the States Rank

	1989-90 appropriations (a)		2-year change			10-year change		
	Amount	Rank	not adjusted for inflation (b)	adjusted for inflation (c)	Rank	not adjusted for inflation (b)	adjusted for inflation (c)	Rank
Alabama	$ 776,641,000	19	+16%	+ 6%	20	+125%	+34%	15
Alaska	176,023,000	40	+ 6%	− 2%	43	+ 84%	+ 9%	38
Arizona	569,982,000	23	+14%	+ 5%	24	+145%	+45%	9
Arkansas	301,200,000	33	+ 6%	− 3%	45	+ 78%	+ 5%	44
California	5,740,737,000	1	+13%	+ 4%	31	+104%	+21%	26
Colorado	504,757,000	26	+14%	+ 5%	25	+104%	+21%	24
Connecticut	463,796,000	28	+12%	+ 3%	37	+105%	+21%	23
Delaware	115,541,000	46	+14%	+ 5%	27	+117%	+29%	19
Florida	1,567,711,000	5	+15%	+ 5%	23	+141%	+43%	10
Georgia	884,669,000	13	+16%	+ 7%	17	+130%	+36%	13
Hawaii	292,456,000	36	+20%	+11%	9	+135%	+39%	12
Idaho	158,247,000	41	+14%	+ 4%	29	+ 86%	+10%	36
Illinois	1,675,322,000	4	+26%	+16%	4	+ 80%	+ 7%	42
Indiana	814,021,000	16	+16%	+ 6%	21	+104%	+21%	25
Iowa	502,293,000	27	+14%	+ 5%	28	+ 78%	+ 6%	43
Kansas	444,788,000	30	+23%	+13%	6	+ 86%	+10%	35
Kentucky	550,182,000	24	+11%	+ 2%	39	+ 83%	+ 9%	39
Louisiana	522,912,000	25	+ 6%	− 3%	47	+ 58%	− 6%	50
Maine	176,868,000	39	+25%	+15%	5	+208%	+83%	1
Maryland	823,349,000	14	+34%	+23%	1	+154%	+51%	5
Massachusetts	815,998,000	15	− 9%	−16%	50	+159%	+54%	2
Michigan	1,408,008,000	8	+ 8%	− 1%	42	+ 74%	+ 3%	45
Minnesota	946,779	12	+16%	+ 7%	18	+ 98%	+17%	29
Mississippi	432,971,000	31	+20%	+10%	10	+ 85%	+10%	37
Missouri	603,535,000	22	+20%	+10%	11	+ 92%	+14%	33
Montana	109,416,000	47	+ 4%	− 4%	49	+ 81%	+ 7%	41
Nebraska	$ 290,491,000	35	+27%	+17%	3	+ 92%	+14%	32
Nevada	146,636,000	42	+30%	+20%	2	+158%	+53%	3
New Hampshire	74,393,000	49	+11%	+ 2%	38	+150%	+48%	6
New Jersey	1,142,805,000	10	+12%	+ 3%	36	+139%	+42%	11
New Mexico	296,412,000	34	+13%	+ 4%	35	+114%	+27%	20
New York	3,185,045,000	2	+11%	+ 2%	41	+106%	+22%	22
North Carolina	1,458,516,000	6	+14%	+ 4%	30	+151%	+49%	7
North Dakota	139,911,000	44	+21%	+11%	8	+126%	+34%	14
Ohio	1,427,041,000	7	+13%	+ 4%	34	+113%	+26%	21
Oklahoma	453,089,000	29	+15%	+ 6%	22	+ 98%	+17%	30
Oregon	395,898,000	32	+13%	+ 4%	32	+ 73%	+ 2%	46
Pennsylvania	1,361,361,000	9	+16%	+ 7%	19	+ 83%	+ 9%	40
Rhode Island	144,522,000	43	+13%	+ 4%	33	+101%	+19%	27
South Carolina	612,508,000	21	+18%	+ 8%	14	+ 91%	+13%	34
South Dakota	85,995,000	48	+17%	+ 7%	16	+72%	− 3%	48
Tennessee	727,449,000	20	+14%	+ 5%	26	+117%	+28%	18
Texas	2,624,288,000	3	+18%	+ 8%	13	+ 99%	+18%	28
Utah	272,201,000	37	+ 6%	− 3%	46	+ 96%	+16%	31
Vermont	59,936,000	50	+20%	+10%	12	+121%	+31%	17
Virginia	1,107,480,000	11	+21%	+11%	7	+149%	+48%	8
Washington	790,383,000	17	+17%	+ 8%	15	+155%	+51%	4
West Virginia	251,505,000	38	+ 6%	− 3%	44	+ 59%	− 6%	49
Wisconsin	734,141,000	18	+11%	+ 2%	40	+ 67%	− 1%	47
Wyoming	116,183,000	45	+ 4%	− 4%	48	+125%	+33%	16
Total U. S.	**$39,326,391,000**		**+14%**	**+ 6%**		**+106%**	**+22%**	

Note: Percentages shown are rounded. Rankings are based on unrounded figures.

(a) Reported by Edward R. Hines of Illinois State University as state tax funds appropriated for operating expenses for higher education, for student aid, and for governing and coordinating boards. Amount of appropriations may be changed in some states because of increases or decreases in revenue. Not included are appropriations for capital outlays and money from sources other than state taxes, such as student fees. Included are appropriations for annual operating expenses even if appropriated to some other state agency for ultimate allocation to universities.

(b) Increase in appropriations for 1989-90 over 1987-88, and over 1979-80 as reported by Edward R. Hines.

(c) Two-year increase in appropriations adjusted for inflation of 8.9 per cent, as indicated by the Labor Department's Consumer Price Indexes for August, 1989, and August, 1987. Ten-year increase in appropriations adjusted for inflation of 68.8 per cent, as indicated by the Consumer Price Indexes for August, 1989 and August, 1979.

FACT FILE—Continued: State Appropriations for Higher Education, 1989-90

	1989-90 appropriations (in thousands)	2-year change
MARYLAND—Continued		
Other	$ 10,132	n/c
Total	**$ 823,349**	**+34%**
MASSACHUSETTS		
U of Massachusetts System	$ 254,904	1%
U of Lowell	53,588	+ 2%
Southeastern Mass U	33,720	+ 8%
Salem St C	21,884	+ 7%
Bridgewater St C	20,764	+ 6%
Fitchburg St C	17,445	+ 6%
Worcester St C	13,962	+ 5%
Framingham St C	13,800	+ 5%
Westfield St C	13,979	+ 8%
North Adams St C	9,588	+ 5%
Massachusetts C of Art	9,202	+ 5%
Mass Maritime Academy	8,480	0%
Community colleges	144,765	+ 8%
Student aid	80,160	– 5%
Other	119,757	n/c
Total	**$ 815,998**	**– 9%**
MICHIGAN		
U of Michigan	$ 285,171	+ 8%
Michigan St U	253,633	+ 8%
Wayne St U	174,039	+ 8%
Western Michigan U	78,138	+ 8%
Eastern Michigan U	59,176	+ 8%
Central Michigan U	54,572	+14%
Ferris St C	37,807	+ 8%
Michigan Tech U	37,402	+ 8%
Northern Michigan U	36,179	+ 8%
Oakland U	33,788	+ 8%
Grand Valley St C	26,018	+13%
Saginaw Valley St U	15,414	+14%
Lake Superior St C	9,801	+ 8%
Community colleges	212,490	+ 8%
Student aid	93,347	+ 7%
Other	5,483	n/c
Less federal aid	4,450	n/c
Total	**$1,408,008**	**+ 8%**
MINNESOTA		
U of Minnesota system	$ 439,953	+13%
State universities	167,400	+28%
Area voc-tech insts	166,652	+13%
Community colleges	88,147	+34%
Mayo Medical Sch	1,034	+22%
Student aid	74,348	+ 5%
Other	9,245	n/c
Total	**$ 946,779**	**+16%**
MISSISSIPPI		
U of Mississippi	$ 106,754	+19%
Mississippi St U	93,023	+22%
U of Southern Mississippi	49,302	+19%
Jackson St U	19,584	+15%
Delta St U	12,345	+30%
Alcorn St U	9,015	+20%
Mississippi Valley St U	7,598	+40%
Mississippi U for Women	7,166	+10%
Vocational education	47,455	+12%
Community colleges	72,960	+28%
Student aid	2,184	+51%
Other	5,585	n/c
Total	**$ 432,971**	**+20%**
MISSOURI		
U of Missouri System	$ 310,457	+18%
Southwest Missouri St U	51,000	+24%
Central Missouri St U	37,828	+27%
Southeast Missouri St U	31,203	+16%
Northeast Missouri St U	26,821	+18%
Northwest Missouri St U	18,592	+19%
Western Missouri St C	12,679	+18%
Southern Missouri St C	12,738	+19%
Lincoln U	10,176	+15%
Harris-Stowe C	4,876	+17%
Community colleges	67,176	+19%
Student aid	15,300	+63%
Other	4,689	n/c
Total	**$ 603,535**	**+20%**
MONTANA		
U of Montana	$ 28,163	+ 2%
Montana St U	43,313	+ 4%
Eastern Montana C	10,715	+ 6%
Northern Montana C	6,585	+ 5%
Western Montana C	3,655	+ 5%
C of Mineral Science & Tech	8,303	+ 9%
Community colleges	3,208	+ 5%
Student aid	4,595	+ 4%
Other	879	n/c
Total	**$ 109,416**	**+ 4%**
NEBRASKA		
U of Nebraska	$ 209,202	+26%
Kearney St C	16,997	+36%
Wayne St C	7,950	+24%
Chadron St C	7,436	+22%
Peru St C	4,118	+33%
Tech CC's	27,000	+21%
Other	17,788	n/c
Total	**$ 290,491**	**+27%**
NEVADA		
U of Nevada System	$ 100,248	+22%
Community colleges	28,286	+31%
Other	18,102	n/c
Total	**$ 146,636**	**+30%**
NEW HAMPSHIRE		
U of New Hampshire	$ 40,250	+15%
Plymouth St C	7,654	+13%
Keene St C	6,711	+ 8%
Sch of Lifelong Learning	744	– 8%
NEW HAMPSHIRE—Continued		
New Hamsphire Tech inst	$ 5,057	+ 6%
Voc-tech colleges	10,960	+ 6%
Student aid	585	14%
Other	2,432	n/c
Total	**$ 74,393**	**+11%**
NEW JERSEY		
Rutgers U System	$ 258,797	+ 9%
U of Medicine & Dentistry of NJ	168,197	+12%
NJ Inst of Tech	42,629	+12%
Montclair St C	39,551	+12%
William Paterson C	33,321	+ 6%
Trenton St C	32,190	+ 9%
Kean C of NJ	30,708	+ 8%
Glassboro St C	29,778	+ 5%
Jersey City St C	27,674	+ 7%
Stockton St C	17,431	+ 7%
Ramapo C of New Jersey	16,594	+11%
Thomas A Edison St C	3,764	+34%
Student aid	98,746	+23%
Community colleges	92,011	– 1%
Aid to private colleges	23,805	+12%
Other	227,609	n/c
Total	**$1,142,805**	**+12%**
NEW MEXICO		
U of New Mexico	$ 122,456	+13%
New Mexico St U	78,860	+13%
Eastern New Mexico U	22,595	+11%
NM Inst of Mining & Tech	14,394	+ 6%
New Mexico Highlands U	10,546	+ 5%
Western New Mexico U	7,125	+ 5%
Community colleges	9,096	+36%
Vocational-technical schools	20,446	+ 8%
Student aid	9,957	+31%
Other	937	n/c
Total	**$ 296,412**	**+13%**
NEW YORK		
State U of New York		
University centers	$ 690,695	+23%
Medical centers	303,081	+18%
Colleges of arts and science	347,006	+15%
Statutory colleges	120,086	+14%
Specialized colleges	78,641	+21%
Ag and tech colleges	105,204	+13%
University-wide programs	115,174	n/c
Fringe benefits	315,273	+13%
Cornell land script	35	+ 3%
Less SUNY student fees	–496,995	+30%
SUNY total	1,578,200	+10%
Cornell cooperative extension	3,161	+12%
Community colleges	333,721	+13%
City U of New York	637,844	+19%
Student aid	429,048	+ 2%
Aid to private colleges	180,936	+14%
Other	22,135	n/c
Total	**$3,185,045**	**+11%**
NORTH CAROLINA		
U of North Carolina		
Chapel Hill	$ 263,531	+12%
North Carolina St U	232,824	+11%
East Carolina U	119,065	+14%
Greensboro	54,583	+19%
Appalachian St U	52,174	+16%
Charlotte	55,154	+21%
NC A&T St U	35,656	+14%
Western Carolina U	33,993	+11%
Wilmington	31,353	+21%
NC Central U	26,385	+ 4%
Fayetteville St U	16,569	+14%
Winston-Salem St U	15,988	+12%
Asheville	15,340	+20%
Pembroke St U	15,223	+22%
Elizabeth City St U	14,538	+28%
NC Sch of the Arts	8,106	+ 7%
NC Memorial Hospital	34,660	+24%
Student aid	49,053	+22%
Other	19,492	n/c
CC's and tech insts	364,829	+13%
Total	**$1,458,516**	**+14%**
NORTH DAKOTA		
U. of North Dakota	$ 51,136	+18%
North Dakota St U	50,381	+21%
ND St Sch of Science	9,625	+12%
Minot St C	9,384	+40%
Dickinson St C	5,052	+21%
Valley City St C	4,134	+18%
Mayville St C	3,253	+15%
Bismarck St C	3,664	+38%
Student aid	1,376	+100%
Other	1,908	n/c
Total	**$ 139,911**	**+21%**
OHIO		
Ohio St U	$ 312,437	+ 9%
U of Cincinnati	140,041	+14%
U of Akron	77,409	+15%
Ohio U	74,025	+18%
Kent St U	67,865	+12%
U of Toledo	63,481	+13%
Wright St U	59,518	+12%
Bowling Green St U	59,977	+16%
Cleveland St U	54,731	+12%
Miami U	50,188	+16%
Youngstown St U	41,403	+12%
Medical C of Ohio	25,999	+13%
Northeastern Ohio U's C of Medicine	12,090	+ 7%
Central St U	13,896	+ 5%
Shawnee St U	10,768	+97%
OHIO—Continued		
Case Western Reserve U Medical and Dental Schs	$ 5,641	– 6%
Community colleges	102,075	+12%
Technical colleges	68,322	+16%
University branches	52,820	+17%
Student aid	76,320	+ 7%
Other	58,035	n/c
Total	**$1,427,041**	**+13%**
OKLAHOMA		
U of Oklahoma	$ 124,488	+16%
Oklahoma St U	126,175	+18%
Central St U	23,645	+13%
Northeastern St U	17,225	+24%
Southwestern Okla St U	12,912	+15%
Cameron U	10,902	+15%
Southeastern Okla St U	9,549	+10%
East Central U	9,739	+13%
Langston U	6,200	+33%
Northwestern St U	4,401	+13%
Oklahoma Panhandle St U	3,872	+ 7%
U of Science & Arts	3,868	+11%
Community colleges	73,488	+13%
Other	26,625	n/c
Total	**$ 453,089**	**+15%**
OREGON		
Oregon St U	$ 99,721	+16%
U of Oregon	60,826	+17%
Oregon Health Sciences U	54,030	– 4%
Portland St U	40,052	+17%
Southern Oregon St C	14,192	+16%
Oregon Inst of Tech	12,483	+24%
Western Oregon St C	12,459	+17%
Eastern Oregon St C	8,603	+19%
Community colleges	69,693	+15%
Student aid	12,302	+10%
Other	11,537	n/c
Total	**$ 395,898**	**+13%**
PENNSYLVANIA		
Pennsylvania St U	$ 240,072	+22%
Temple U	133,831	+14%
U of Pittsburgh	131,115	+22%
Lincoln U	9,541	+18%
Indiana U of Pa	46,271	+11%
West Chester U of Pa	34,955	+17%
Slippery Rock U of Pa	25,169	+13%
Bloomsburg U of Pa	25,621	+14%
Millersville U of Pa	25,460	+14%
Kutztown U of Pa	24,123	+16%
Edinboro U of Pa	23,037	+ 9%
Clarion U of Pa	22,960	+11%
Shippensburg U of Pa	22,609	+13%
California U of Pa	21,257	+17%
East Stroudsburg U of Pa	18,569	+11%
Cheyney U of Pa	13,416	n/c
Mansfield U of Pa	13,827	+ 7%
Lock Haven U of Pa	13,823	+11%
Thaddeus Stevens St Sch of Tech	4,333	+28%
Private, state-aided insts	76,474	+15%
Community colleges	92,589	+17%
Other	342,309	n/c
Total	**$1,361,361**	**+16%**
RHODE ISLAND		
U of Rhode Island	$ 69,435	+12%
Rhode Island C	32,073	+15%
CC of Rhode Island	27,453	+18%
Student aid	10,714	+17%
Other	4,847	n/c
Total	**$ 144,522**	**+13%**
SOUTH CAROLINA		
U of South Carolina	$ 171,811	+18%
Clemson U	117,303	+23%
Medical U of South Carolina	108,193	+15%
South Carolina St C	19,766	+14%
Winthrop C	19,504	+18%
C of Charleston	19,989	+21%
Citadel Military C of SC	13,441	+14%
Francis Marion C	12,532	+32%
Lander C	8,294	+22%
Aid to private-college students	17,665	+12%
Student aid	1,103	+41%
Community colleges	95,243	+ 8%
Other	7,664	n/c
Total	**$ 612,508**	**+18%**
SOUTH DAKOTA		
U of South Dakota	$ 29,243	+14%
South Dakota St U	35,486	+14%
SD Sch of Mines & Tech	8,394	+12%
Northern St U	8,102	+18%
Black Hills St U	5,918	+12%
Dakota St U	4,457	+12%
Vocational education	6,501	+10%
Student aid	494	+ 3%
Other	6,615	n/c
Less estimated tuition	–19,215	+ 4%
Total	**$ 85,995**	**+17%**
TENNESSEE		
U of Tennessee System	$ 296,187	+14%
St U System		
Memphis	75,942	+10%
East Tennessee	53,166	+16%
Middle Tennessee	43,619	+16%
Tennessee Technological U	32,986	+ 9%
Tennessee	25,409	+10%
Austin Peay	16,902	+ 8%
Community colleges	105,872	+13%
TENNESSEE—Continued		
Area voc-tech schools	$ 25,865	+ 7%
Community colleges	105,872	+13%
Student aid	13,298	+11%
Other	38,203	n/c
Total	**$ 727,449**	**+14%**
TEXAS		
U of Texas System	$ 924,476	+14%
Texas A&M U System	340,145	+19%
U of Houston System	131,214	+20%
Texas St U System		
Southwest Texas St U	41,549	+25%
Sam Houston St U	25,133	+25%
Angelo St U	11,956	+22%
Sul Ross St U	6,884	+14%
Administration	375	+20%
Lamar U System	32,932	+22%
Texas Tech U	120,020	+16%
U of North Texas	87,919	+26%
East Texas St U	21,870	+ 9%
Texas St Tech Inst	46,306	+ 7%
Texas Woman's U	31,074	+17%
Stephen F Austin St U	27,254	+21%
Texas Southern U	23,854	+34%
West Texas St U	13,500	+10%
Midwestern St U	10,525	+28%
Baylor C of Medicine and Dentistry	45,217	+ 7%
Community colleges	512,064	+24%
Other	170,021	n/c
Total	**$2,624,288**	**+18%**
UTAH		
U of Utah	$ 118,340	+ 4%
Utah St U	63,462	+ 5%
Weber St C	31,588	+ 3%
Southern Utah St C	10,396	+13%
Dixie C	6,076	+10%
Snow C	5,683	+ 9%
C of Eastern Utah	5,350	+15%
Utah Tech C, Provo	12,423	+11%
Utah Tech C, Salt Lake	15,714	+20%
Other	3,169	n/c
Total	**$ 272,201**	**+ 6%**
VERMONT		
U of Vermont	$ 30,780	+17%
State colleges	15,971	+20%
Student aid	13,066	+27%
Other	119	n/c
Total	**$ 59,936**	**+20%**
VIRGINIA		
Virginia Polytech Inst and St U	$ 176,215	+17%
Va Commonwealth U	168,280	+ 6%
U of Virginia	167,147	+19%
George Mason U	56,658	+29%
Old Dominion U	49,833	+18%
C of William and Mary	47,101	+30%
James Madison U	33,973	+23%
Radford U	27,212	+38%
Norfolk St U	25,583	+10%
Virginia St U	15,703	+22%
Longwood C	11,395	+21%
Mary Washington C	10,882	+28%
Virginia Military Inst	10,135	+23%
Christopher Newport C	9,799	+17%
Community colleges	187,100	+20%
Student aid	45,944	+32%
Other	64,520	n/c
Total	**$1,107,480**	**+21%**
WASHINGTON		
U of Washington	$ 242,331	+20%
Washington St U	138,169	+18%
Western Washington U	39,326	+16%
Eastern Washington U	35,384	+ 7%
Central Washington U	30,489	+10%
Evergreen St C	18,993	+19%
Community colleges	259,758	+19%
Other	25,933	n/c
Total	**$ 790,383**	**+17%**
WEST VIRGINIA		
West Virginia U	$ 128,579	n/c
Marshall U	37,105	n/c
W Va C of Graduate Studies	5,400	n/c
Fairmont St C	10,832	n/c
W Va Inst of Tech	9,140	n/c
West Virginia St C	9,015	n/c
West Liberty St C	7,656	n/c
Shepherd C	6,931	n/c
Concord C	6,100	n/c
Glenville St C	5,142	n/c
Bluefield St C	4,932	n/c
W Va Sch of Osteopathic Medicine	4,984	n/c
Community colleges	12,218	n/c
Student aid	4,276	n/c
Other	1,355	n/c
Less dedicated lottery proceeds	–2,160	n/c
Total	**$ 281,506**	**+ 6%**
WISCONSIN		
Total	**$ 784,141**	**+11%**
WYOMING		
U of Wyoming	$ 76,386	+ 2%
Community colleges	37,064	+12%
Other	2,734	n/c
Total	**$ 116,183**	**+ 4%**

Note: Some totals may be inconsistent with itemized figures because of rounding

n/c Not comparable

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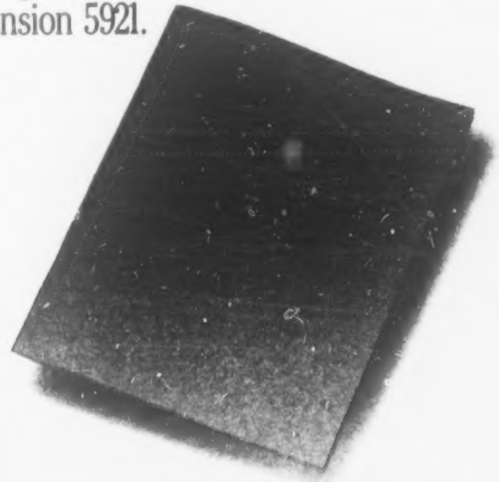

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